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A Great Divide on Homosexuality in the Contemporary World: How Do Attitudes Change?

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Abstract

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The purpose of this paper is to investigate the issue of global divide on homosexuality in the contemporary world, to determine the main predictors of homonegativity and to understand how societal attitudes towards homosexuality change. A brief historical excursion from pre Christian era to modern days was conducted to observe how societal attitudes towards homosexuality were changed several times throughout history. I derived several theories from social psychology to explain this attitude change, the most important of which was expertise heuristics. Taking into account historical patterns and theoretical background, we conducted empirical cross-country and multiple regression analysis based on the global data from more than 100 countries.

I discovered that religion and religiosity are one of the main factors which contribute to homonegativity by shaping personal attitudes and societal values. The mechanism of religious influence could be explained by the expertise heuristics effect. This effect means that persons derive their attitudes from the experts' statements and judgements. Thus, confidence in authorities matters. In case of religion, more confidence in religious institutions a particular person has, more these institutions and their propaganda affect attitudes and opinions of this person. Applying this to attitudes towards homosexuality, greater confidence in religious institutions contributes to more homonegativity. However, the negative effect of religion differs for different religious denominations. I discovered that Islam is the most homonegative of all religious denominations while Protestantism is the least homonegative one.

The main finding is that religion shapes attitudes towards homosexuality through homonegative propaganda by its institutions which influence societal attitudes and values. The possible way to value change is secularization and decrease of the role of religious institutions in society. These findings are supported by historical patterns and by empirical results.

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1. Introduction: General Overview

The issue of homosexuality, gay rights and same-sex marriages divides the contemporary world in halves. While Western and Anglo-Saxon countries (Western Europe, North America and Latin America, New Zealand) more or less accepted homosexuality, legalized same-sex marriages (or at least same-sex partnerships) and offered to gay people some protection from discrimination in their laws, other half of the world, including Eastern Europe and Russia, Asia and Africa, still does not recognize and protect gay rights. Moreover, in many of these countries, mostly Muslim countries with sharia law, being a homosexual is serious crime for which people could be sentenced to jail or even to death.[1] There are more than 76 countries in modern world when homosexuality is still illegal, as is reported by the International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA).[2] ILGA also provided the list of 10 nations which have a death penalty for homosexuals in their laws. [3]In some of these countries as Sudan, Yemen, Somalia and Nigeria, such laws are implemented into the criminal code of these countries but no actual executions have been reported.[4]In other nations, as Iraq, there is no such law in the book, but executions of homosexuals are carried out by militaries and religion leaders.[5]The worst situation with gay rights is probably in Iran and Saudi Arabia, the might Eastern powers, where death penalty for homosexuals is implemented into the law and executions of gay people are carried out on the regular basis.[6]

In most of the Eastern European countries same-sex marriages still do not have any legal recognition, or even constitutional ban on same-sex marriages is implemented in some countries. Even in such countries as Czech Republic or Slovenia, where gay marriages have a legal recognition, they are accepted as civil unions and not as full marriages.[7][8] In some countries additional anti-gay laws were implemented. For example, Russia in 2013 passed so-called "gay propaganda law" which banned any positive or neutral (but not homonegative!) mentions of homosexuality in public in order to "protect children from harm", as a second amendment to the Federal Law of Russian Federation "On Protection of Children from Information Harmful to Their Health and Development"[9].

[1] Erasing 76 Crimes 2016
[2] Ibid.
[3] Erasing 76 Crimes
[4] Ibid
[5] Ibid
[6] Ibid
[7] ZÁKON ze dne 26. ledna 2006 o registrovaném partnerství a o změně některých souvisejících zákonů 2006.
[8] U K A Z o razglasitvi Zakona o registraciji istospolne partnerske skupnosti (ZRIPS) 2005
[9] Федеральный закон "О защите детей от информации, причиняющей вред их здоровью и развитию" от 29.12.2010 N 436-ФЗ (действующая редакция, 2016).

From this picture, we could observe that modern world is intensely divided when it comes to gay rights and same-sex marriages. Currently, there are 23 countries in the modern world (mostly in Europe and Americas, with a slight exception of South Africa) which gave a full recognition to the same-sex marriages, according to the report of Pew Research Center[10]. In other countries, as was noted above, the legal recognition of the same-sex marriages differs from partial recognition to criminal punishment for homosexual relations and even death sentence. Therefore, an important question arises: why contemporary world is so divided on this issue? Why some nations and countries granted same-sex couples with full legal recognition, while others continue to persecute and kill homosexuals?

To answer this question, a detailed research is required. The aim of this research is to catch up the main historical, cultural, social and political features of this issue, to build up a theoretical model and then to test it with empirical data from The World Values Survey. Before proceeding to that, some additional preliminary notes are required however. It is worth to note, that a little more than fifty years ago, the situation with gay rights in Western world was not any better than in the other parts of the world now. In most of the European countries, for example, the homosexual activity itself was illegal until the second half of 20st century according to ILGA world survey.[11]Even if in such countries as Belgium and France homosexual activity was legal since 1795[12](we will return to these examples later), there were no legal recognition for homosexual relations even in those countries. However, Netherlands legalize same-sex marriage in 2001, thus becoming the first country in the world to recognize homosexual marriage.[13]After that, spillover effect has followed, and by now 23 countries of the world recognize same-sex marriages, and some other countries have a partial recognition of a legal status of same-sex relationships. This rapid progress in accepting homosexuality and recognition of same-sex marriages was made during the last fifteen years. Before that, situation with gay rights was much worse even in the Western countries. In addition, it is worth to note that not only Western governments recognize same-sex marriages, but the public opinion about acceptance of homosexuality has also been drastically changed in these countries. According to the Pew Research Center report in 2013, the majority of population in Western Europe and North America accept homosexuality.[14]In addition, in their report PRC have shown a percentage change in public opinion on acceptance of homosexuality, and in most of the Western European and North American countries presented in their report (with a slight exception of France, where public opinion on homosexuality changed in negative way during

[10] Pew Research Center 2015
[11] International Lesbian, Gay, Bisexual, Trans and Intersex Association: Carroll 2016
[12] Ibid
[13] Wet openstelling huwelijk Geldend van 01-04-2001 t/m heden 2001
[14] Pew Research Center 2013

the last 6 years), this change is towards the acceptance of homosexuality.[15]Therefore, we can conclude that the societal views towards homosexuality were also drastically changed to the positive in most of these societies and the legal recognition of gay rights and same-sex marriages came along with the public acceptance of homosexuality.

However, the rest of the world has not being as strong in terms of acceptance of gay rights. As PRC reported, "publics in Africa and in predominantly Muslim countries remain among the least accepting of homosexuality. In sub-Saharan Africa, at least nine-in-ten in Nigeria (98%), Senegal (96%), Ghana (96%), Uganda (96%) and Kenya (90%) believe homosexuality should not be accepted by society. Even in South Africa where, unlike in many other African countries, homosexual acts are legal and discrimination based on sexual orientation is unconstitutional, 61% say homosexuality should not be accepted by society, while just 32% say it should be accepted."[16]Russia remains the least accepting homosexuality country in Europe (74% of Russian population believe that homosexuality should not be accepted by society).[17]

To conclude this chapter, it is worth to note that contemporary world is greatly divided on homosexuality issue – from the full acceptance and legal recognition, as in some Western countries, to the full rejection and legal persecution up to death sentence, as in some Middle Eastern countries. Therefore, the question of global divide on homosexuality arises again. Why some nations in the world changed their attitude towards homosexuality drastically during the last decades and came to acceptance of gay relations and same-sex marriages, while others persist to reject homosexuality and to persecute gay people? To answer this question, a brief historical review is required. To understand the contemporary global divide on homosexuality, we need to know how attitudes towards homosexuality were changing from the beginning of time.

From historical review, we will proceed to a literature review where we will investigate which research had been already done on the homosexuality issue and how could it explain the historical pattern which we will derive from historical review. Then, we will explore theories from social psychology what could help us to understand better how the societal values and attitudes towards homosexuality actually change and which possible mechanisms lie behind it. Finally, we will present our empirical models and analysis where we will test our hypotheses about homonegativity and main factors which cause it. Finally, we will conclude.

[15] Ibid.
[16] Ibid
[17] Ibid

2. Historical Overview

2.1. Homosexuality in the Ancient World

Although the world "homosexuality" is relatively new (the concept of homosexuality was first written by German writer Karl Heinrich Ulrichs in 1864, who now considered a pioneer of the gay rights movement, and the term "homosexual" was first coined by the Hungarian journalist Karoly Maria Kertbeny (born Karl-Maria Benkert) in 1869)[18], homosexuality itself is as old as humanity. The first officially registered records of homosexuality date back to a pre-history, Mesolithic era: depictions of male intercourse were found in Mesolithic rock art in Sicily and date back to 9660 BCE.[19]In addition, drawings and sexual depictions of the Neolithic and Bronze Age, like human figures of a "third sex" (e.g., with female breast and male genitals) were discovered, for example, in Neolithic Greece and Cyprus.[20]

There is mass evidence that homosexuality was widely accepted in the pre Christian era, in pagan civilizations[21], with slight exception of Ancient Egypt, where homosexuality was condemned as one of the "sins" in the Book of the Dead (the Egyptian Book of the Dead is a mortuary texts collection of Ancient Egypt which was written originally on papyrus and covered with magic spells, dating back to the 1650-1550 BCE).[22]Despite its being the first condemnation of homosexuality on a religion basis in human history, thus was, however, unique to Egyptian pagan religion and was not met in the other ones.[23] In addition, there was no any mention of legal prescriptions against homosexuality in Ancient Egypt.

However elsewhere in the ancient world homosexuality was generally widely accepted in the ancient world and neither ancient kings nor pagan religions found any reason to persecute and condemn homosexuals. Thus, male cult homosexual prostitutes were quite popular in Ancient Mesopotamia.[24]But the most notable fact is probably that Assyrian men prayed to their gods to bless their homosexual love.[25] That was a striking contrast with Christianity where only heterosexual marriage is considered to be divinely blessed.

However, the most remarkable example of homosexuality acceptance in the ancient world is probably Ancient Greece. Thus, the largest amount of material on the history of homosexuality comes from the Ancient Greece – from the works of Ancient Greek philosophers and writers such

[18] Kennedy 1997: 26-45
[19] Mussi 2002: 343–344
[20] Talalay 2005: 130-155
[21] Greenberg 1990
[22] Translated by Allen 1974
[23]Greenberg 1990
[24] Ibid
[25] Reallexicon der Assyriologie und Vorderasiatischen Archäologie 1922:465

as Plato, Aristotle, Xenophon, and even Homer in his famous poems "Iliad" and "Odyssey", from theatre plays by Aristophanes, from Greek artworks (e.g., amphora ornamentations, sculptures, etc.)[26]Another important issue is that the Ancient Greeks established the whole social institution of homosexual relations of *paiderastia*, which did not replace traditional heterosexual marriage but coexisted with it simultaneously.[27] Therefore, we could argue that not only was there no condemnation of homosexuality in Ancient Greece, but that homosexual relations, especially in the form of *paiderastia*, were highly accepted by society and even praised if they were practiced by the upper-class part of Hellenic society – the aristocracy.

Evidence of homosexuality acceptance in the pagan world could be found in other civilizations as well. For example, wall paintings from one Etruscan tomb in Tarquinia, Italy dating back to the 6th century BCE depict homosexual intercourse between two males.[28]In addition, Aristotle in his "Politics" mentioned that the Celts openly approved and highly esteemed sexual relationships between males.[29] Similarly, Diodorus described that the Celts not only practiced homosexual relations in an open way but also disapproved of the Greek *paiderastia*, because the Celts favored "relationships between the equals and were not concerned with the beauty of young age"[30]. Therefore, homosexuality was not only widely accepted in the ancient world but even special social institutions for homosexual relations, such as the Greek *paiderastia*, or the Celtic "warrior brotherhoods" were established.

2.2. Christianity, Islam and the Condemnation of Homosexuality

If homosexuality was so widely accepted in the ancient world, where did its condemnation come from? It came together with Judeo-Christian monotheistic religions, Christianity and Islam in particular. Before exploration of Christian and Islamic ATH (attitudes towards homosexuality), we should try to understand what the holy books of those religions – the Bible and the Quran – say about homosexuality. Leviticus 18, part of Leviticus, which in turn is a part of the Old Testament, officially condemns homosexual men with the penalty of capital punishment.[31] These lines unambiguously outlawed homosexual men both in Judaism (which is based on the Old Testament),

[26] Dover 1989
[27] Boswell 1994
[28] Steingräber 2006:67, 70, 91–92
[29] Freeman 2002
[30] Ibid
[31] Leviticus:
18:22 "Do not lie with a man as one lies with a woman; that is detestable".
20:13 "If a man lies with a man as one lies with a woman, both of them have done what is detestable. They must be put to death; their blood will be on their own heads".

and Christianity which accepted the Old Testament also in addition to the New. Homosexuality is often referred to idolatry in the Bible, which was considered to be "the mother of all sins".[32] This fact made some scholars claim that in the mind of ancient Jews, the homosexuality was strongly associated with paganism, and that their new religion should oppose old pagan cultures with its sexual sins.[33] That does not explain, however, why homosexuality at all should be chosen as a sin, because pagans did many other things that were fully accepted in the Bible – for example, sacrificing animals to God.[34]

Another nail in the coffin of homosexuality in Christianity was hammered in by Apostle Paul. The first chapter of the famous Epistle of Paul to the Romans contains passages that many Christians and Christian theologians consider as the clearest and most complete evidence of condemnation of homosexuality by Christianity.[35]

In similar fashion to Christianity, we will first investigate what the Quran, the holy book of Islam, and the Islamic prophet and creator of Islam Muhammad said about homosexuality. Several passages in Quran explicitly condemn homosexuality as a "sin".[3637]However, no clear punishment is determined for homosexuals in the Quran.[38] However, hadiths by the prophet Muhammad are far stricter regarding this issue. For example, passages from hadiths such as the following made it clear what should be done to homosexuals:

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[32] Exodus 20:2-5

2 "I am the Lord your God, who brought you out of Egypt, out of the land of slavery".

3 "You shall have no other gods before[a] me".

4 "You shall not make for yourself an image in the form of anything in heaven above or on the earth beneath or in the waters below".

5 "You shall not bow down to them or worship them; for I, the Lord your God, am a jealous God, punishing the children for the sin of the parents to the third and fourth generation of those who hate me."

[33] Bottero 1992: 190-192

[34] Exodus 29:19-22

"Then you shall take the other ram, and Aaron and his sons shall lay their hands on the head of the ram. "You shall slaughter the ram, and take some of its blood and put it on the lobe of Aaron's right ear and on the lobes of his sons' right ears and on the thumbs of their right hands and on the big toes of their right feet, and sprinkle the rest of the blood around on the altar. "

[35] Bruce 1983.

Romans 1:26-27: "For this cause God gave them up unto vile affections: for even their women did change the natural use into that which is against nature: And likewise also the men, leaving the natural use of the woman, burned in their lust one toward another; men with men working that which is unseemly, and receiving in themselves that recompence of their error which was meet."

[36] Al-Araf 80-81

"And [We had sent] Lot when he said to his people, "Do you commit such immorality as no one has preceded you with from among the worlds?(80)Indeed, you approach men with desire, instead of women. Rather, you are a transgressing people."(81)"

[37] Ash-Shura 25:165-166

"Do you approach males among the worlds(165).And leave what your Lord has created for you as mates? But you are a people transgressing."(166)"

[38] Quran 4:16

"And the two who commit it among you, dishonor them both. But if they repent and correct themselves, leave them alone. Indeed, Allah is ever Accepting of repentance and Merciful."

"Narrated Abdullah ibn Abbas: The Prophet (peace be upon him) said: If you find anyone doing as Lot's people did, kill the one who does it, and the one to whom it is done."[39]

"Narrated Abdullah ibn Abbas: If a man who is not married is seized committing sodomy, he will be stoned to death."[40]

There are also other hadiths that prescribe exactly the same things to be done to homosexuals – to kill both persons engaged in this activity, preferably to stone them to death.[41]In addition, the Quran cited the Bible story of "people of Lut" (who were interpreted to be engaged in carnal activities between males) and of the following wrath of God upon Sodom and Gomorra.[42]Therefore, the traditional schools of Islamic (Sharia) Law considered homosexuality a sin and homosexual acts to be punishable crimes. The punishment for such a "sexual transgression" should be the only one possible in Islam, according to the hadiths – a death penalty.

Therefore, both religions – Islam and Christianity – condemned homosexuality with the preferable punishment of the death penalty. These attitudes became actual laws when the Roman Empire was converted to Christianity in the 4th century and then when the Arab caliphate arose in the 7th century. Thus, in 342, the first anti-gay law was introduced by Roman emperors Constantius II and Constans.[43]The situation worsened with the passage of time. In 390 other Roman emperors Valentinian II, Theodosius I and Arcadius introduced a death penalty for homosexual men caught during sexual intercourse – to burn them alive before the public.[44] After the fall of the West Roman Empire in the 5th century, this homonegative attitude was inherited by the newborn European kingdoms which were converted to Christianity. Thus, the first European secular law against homosexuality was implemented in the Visigothic kingdom in 654, with a penalty of castration.[45]Other European states followed and the penalty soon became that of death.

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[39] Sunan of Abu-Dawood – Book 38 Hadith 4447

[40] Sunan of Abu-Dawood – Book 38 Hadith 4448

[41] Ibn Majah 3:9:1904, Tirmidhi 1:152, Al-Muwatta 41 41.111,etc.

[42] Wheeler 2002: 8

[43] THEODOSIANI LIBRI XVI. Codex Theodosianus, 9.8.3

"When a man marries and is about to offer himself to men in womanly fashion (quum vir nubit in feminam viris porrecturam), what does he wish, when sex has lost all its significance; when the crime is one which it is not profitable to know; when Venus is changed to another form; when love is sought and not found? We order the statutes to arise, the laws to be armed with an avenging sword, that those infamous persons who are now, or who hereafter may be, guilty may be subjected to exquisite punishment".

[44] THEODOSIANI LIBRI XVI. Codex Theodosianus, 9.7.6

"All persons who have the shameful custom of condemning a man's body, acting the part of a woman's to the sufferance of alien sex (for they appear not to be different from women), shall expiate a crime of this kind in avenging flames in the sight of the people".

[45] Scott 1910. The Visigothic Code, 3.5.5, 3.5.6

"The doctrine of the orthodox faith requires us to place our censure upon vicious practices, and to restrain those who are addicted to carnal offences. For we counsel well for the benefit of our people and our country, when we take

The most important thing to remember though that persecution of homosexuals never ceased in Europe from the early Middle Ages (7th century, when the first secular laws against homosexuality were implemented as mentioned above) to the end of the 18th century.

2.3. First Attempts at the Decriminalization of Homosexuality

The first attempts of the decriminalization of homosexuality in Europe date back to the French revolution, to the end of 18th century, and are attributed by some researchers to the pervasive influence of the philosophy of the Enlightenment at that time.[46]Indeed, the French Penal code of 1791, which was adopted during the French revolution (1789-1799), excluded homosexuality from "sexual crimes" (before it, "homosexual acts" were considered a capital offence in France)[47] with only rape remaining as a punishable sexual crime.[48]Thus, France decriminalized homosexuality first in Europe.[49]The French Penal Code of 1810, created by Napoleon to replace the Penal Code of 1791, subsequently confirmed this statement about homosexuality, and, moreover, was applied to corresponding laws in Belgium and the Netherlands.[50]

Meanwhile, in another part of the world, in the Ottoman Empire, homosexuality was decriminalized in 1858 during so-called Tanzimât reformation.[51]Thus, as France decriminalized homosexuality first in the Christian world, the Ottoman Empire became the first country in the Muslim world to do the same. Interestingly, the Tanzimât reforms started from the Edict of Gülhane of 1839, which also declared the legal equality between Muslims and non-Muslims in the Ottoman Empire.[52]

Following the examples France and the Ottoman Empire in the Catholic and Islamic worlds respectively, Russia became the pioneer in the decriminalization of homosexuality in the Orthodox world. Thus, the October Revolution of 1918 repealed the former criminal code, including the

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measures to utterly extirpate the crimes of wicked men, and put an end to the evil deeds of vice. For this reason we shall attempt to abolish the horrible crime of sodomy, which is as contrary to Divine precept as it is to chastity. And although the authority of the Holy Scriptures, and the censure of earthly laws, alike, prohibit offences of this kind, it is nevertheless necessary to condemn them by a new decree; lest if timely correction be deferred, still greater vices may arise. Therefore, we establish by this law, that if any man whosoever, of any age, or race, whether he belongs to the clergy, or to the laity, should be convicted, by competent evidence, of the commission of the crime of sodomy, he shall, by order of the king, or of any judge, not only suffer emasculation, but also the penalty prescribed by ecclesiastical decree for such offences, and promulgated in the third year of our reign."

[46] Merrick and Ragan 1996

[47] Ibid

[48] Code pénal du 25 septembre 1791

[49] Merrick and Ragan 1996

[50] Ibid

[51] Cleveland and Bunton 2009

[52] Deringil 1993: 3-29

abovementioned Article 995 which made *muzhelozhstvo* ("male homosexuality" in Russian) illegal. Indeed, the new Russian Federation Criminal Code of 1922 did not mention homosexuality at all.[53]

We explored the decriminalization of homosexuality in three different countries which were pioneers in these issues in their surroundings – France, the Ottoman Empire and the Soviet Russia. Decriminalization of homosexual activity was either a consequence of revolution and regime change (as in France or in Russia) or part of governmental reformative politics (as in Ottoman Empire). In all of these cases, this new policy was occurred together with the secularization of society and a significant shift from the religion-based laws and values. In some cases, as in France, the long influence of a new ideology, the philosophy of the Enlightenment, might have contributed to the legalization of homosexuality as well. Nevertheless, the examples of these countries did not result in a spillover effect and homosexuality remained illegal in most of the world in the 19th and the first half of the 20th centuries. The peak of homonegativity was reached in the mass persecution of homosexuals in Nazi Germany and Stalin's Russia, as well as in some other authoritarian societies of the 20th century as Mussolini's Italy and General Franco's Spain. Better days for homosexuals only came in the second half of the 20th century and only in the Western part of the world.

Therefore, we return to the problem of the global divide on homosexuality in the contemporary world. Why has the Western world eliminated the pervasive homonegative influence of Christianity while the Islamic world persists in the persecution of homosexuals based on Islam? I argue that it is because in the West he church has been separated from the state with the establishment of a secular legal system with respect to human rights, while in the Islamic world many countries still live under religious, "sharia law", and church and religious leaders still have a huge influence over society. To understand better the mechanism of value change, the difference between religious and secular values, and the influential power of churches over society, a literature review is required. What had already been done by other scholars to investigate this problem? What research has already been conducted, and how has it helped to answer this question of a great divide on homosexuality in the contemporary world?

3. Literature Review

Since our research about public opinion towards homosexuality will be conducted in the field of quantitative political science, sociology and cultural studies, we will explore the literature related to this issue in the same fields. In addition, because we try to understand the reasons behind

[53] Kon 1995

the global divide on homosexuality in the world, it makes sense to investigate papers based on data gathered from different countries from all over world.

It is intuitive that when we research such issue as homosexuality and attitudes towards it, cultural context and religion may play an important role in shaping these attitudes. Historical review also suggested its importance. When we speak about culture and cultural change, it is appropriate to mention Ronald Inglehart, an American political scientist and director of the World Values Survey who had done a lot of research focused on cultural and value change, based on the world data from his survey. In his first two great volumes, *The Silent Revolution* (1977)[54] and *Culture Shift in Advanced Industrial Society* (1990)[55], Inglehart discovered a significant shift in populations' values of modern societies. This so-called *value change*, according to Inglehart, goes in two directions – from *traditional* to *secular*, or *rational* values, and from *survival* to *self-expression* values. Traditional societal values, shaped throughout the centuries mostly by religion norms and religious beliefs, are replacing by secular-rational values in modern advanced industrial societies. In addition, when personal basic needs – food, shelter, safety (e.g., survival) – are fulfilled with a little help of economic growth, and when economic security is more or less achieved, people suddenly got a chance to think about their subjective well-being, quality of life and self-expression. This is, according to Inglehart, a transition from survival to self-expression values. In his next volume, *Modernization and Postmodernization* (1997)[56], Inglehart linked this cultural and value change with economic development, modernization and industrialization. Thus, new values, e.g., self-expression and rational-secular values, are the attributes of postmodern societies who enjoy the benefits of long-term economic growth. Therefore, Inglehart called them also *postmodern values*.

It is a very interesting theory indeed but what does it have to do with homosexuality? The important issue here that Inglehart, in relation to his cultural change, examined also the problem of gender equality, the attitudes towards family and sexual issues (children, divorce, abortion, homosexuality) and the tolerance of minorities and outgroups, again, including homosexuals. He discovered that the acceptance of homosexuality is correlated positively with self-expression and secular-rational values and negatively – with traditional and survival values. Therefore, an increasing tolerance towards homosexuals and legal recognition of homosexual relations in the Western world could be due to this value change. In addition, Inglehart discovered that religion and religious beliefs, in the contrary, are linked positively with traditional values and negatively – with secular-rational values. Therefore, religion and religious beliefs could be considered an important predictor of personal attitudes towards homosexuality. This fact received confirmation from history.

[54] Inglehart 1977
[55] Inglehart 1990
[56] Inglehart 1997

Homosexuality was first criminalized under the influence of new religions – Christianity and Islam, and then decriminalized either after revolutions (and what is revolution if not the most radical value change?) and secularization.

In addition, economic development is another predictor of public opinion on homosexuality. Since poverty and economic insecurity are associated with secular values, and, therefore, less tolerance towards homosexuality, the economic prosperity and social welfare, in the contrary, promoted the self-expression values and increasing acceptance of homosexuality.

Inglehart and Baker (2000) tested the thesis that economic development and modernization is linked to the change of values, including the public opinion towards homosexuality. For this purpose they used data from three waves of the World Values Surveys from 65 societies and 75% of world population. Public acceptance of homosexuality in their view is very important because it could be considered level of tolerance and acceptance of any outgroup or minority in particular society.[57]The acceptance of homosexuality, in turn, is associated with changing of societal values from traditional, survival values of pre-industrial societies to secular-rational values of postindustrial ones.

As was mentioned above, Inglehart and Baker found evidence that industrialization and economic development promotes shift in values and is responsible for huge and pervasive cultural changes in many postindustrial societies. Inversely, economic collapse tends to move societies in opposite direction. However, Inglehart and Baker also found evidence for persistence of distinctive traditional values and associated with them intolerance towards homosexuality in some societies despite of the economic development. What could be the reasons for that?

To explain this notable contradiction, we should remember, that different societies, even when they are subjected to the same economic development, react to it in different ways. In general, many country-specific factors could be responsible for these differences, but the most interesting for our analysis is cultural heritage which also shapes the development of each particular society. Many scholars have explored this issue as well. For example, Weber argued that traditional values shaped usually by religion have an overwhelming influence on society and its institutions.[58]Therefore, we need to investigate in more details the role of religion in shaping values and culture. What is interesting here, however, is what we now call traditional values, are values which shaped by relatively new world religions – Christianity and Islam. Back in pre Christian times, as our literature review suggested, traditional values were different and they supported homosexuality. It's new religion who brought negative change to these values.

[57] Inglehart and Baker 2000: 19-51
[58] Weber 1904, translated by Parsons 1958

In addition, Inglehart's works were concentrated more on value change in postindustrial societies in general, and homosexuality acceptance was only one small part of this great change, along with increasing tolerance towards other marginalized groups. In their research Inglehart and his colleagues did not focus on factors which influence the acceptance of homosexuality specifically, though. Surely, the shift towards secular-rational and self-expression values of postindustrial societies matters if we speak about changing attitudes towards homosexuality as well. However, is this value change is necessary and sufficient condition for homosexuality acceptance, or, would it be possible that, despite of general value change in particular society, homosexuality is still not accepted there? Are there also other factors that might influence public opinion on homosexuality which were overlooked by Inglehart and his colleagues? We need more specific works about homosexuality acceptance to answer these questions. Fortunately, we do have a plenty of scholars in quantitative political science, sociology and cultural studies who explored this issue and – what a coincidence – were inspired by Inglehart's work initially.

Many researchers explored the role of the religion, religiosity and cultural context in shaping attitudes towards homosexuality. Thus, Adamczyk and Pitt (2009)[59] measured the impact of religiosity on attitudes towards homosexuality using data from World Values Survey. They conducted a multilevel research on individual and country levels with justifiability of homosexuality as a dependent variable. The independent variables of their primary interest were self-expression values vs. survival values (based on Inglehart and Baker's index), personal religiosity (measured as importance of religion in personal life, only on individual level) and religion denomination (they used Catholic, Protestant, Orthodox, Muslim, Hindu and Buddhist). Their correlation analysis results demonstrated that the largest correlation for personal attitudes towards homosexuality is country survival vs. self-expression index. The following important factors of public opinion on homosexuality are living in Muslim-majority country and then Muslim religious affiliation, both of which are highly negatively correlated with acceptance of homosexuality. The importance of religion in general proved to be the least correlated with their variable of interest. Their regression results confirmed the correlation ones. Individuals who live in countries with self-expression orientations have more approving attitudes towards homosexuality than residents of countries with survival ones. Living in Muslim-majority country, compared to living in Christian or Hindu or Buddhist society, along with Muslim religious affiliation compared to other religion denominations, is proved to be the predictor of more disapproving attitudes towards homosexuality as well. It is not surprisingly also that general religiosity affects tolerance of homosexuality in a negative way too, though differences in levels of acceptance between Muslims and other religion confessions are notable and significant. Their another important finding that

[59] Adamczyk and Pitt 2009: 338–351.

survival vs. self-expression index is highly correlated with living in Muslim-majority country and that almost all of Muslim countries with a slight exception of Nigeria have a strong survival orientation.

Adamczyk and Pitt's findings are indeed very important. They gave an additional empirical support for Inglehart' argument about self-expression values as one of the main predictors of homosexuality acceptance. They demonstrated also that though personal religiosity in general affects attitudes towards homosexuality in a negative way, the difference between religion affiliations is also important. Thus, Muslims have much more disapproving attitudes towards homosexuality compared to members of other religion denominations. However, that could be the case not only because of negative role of Islam compared to other religions in this respect, but also because of the strong survival orientation of almost all of Muslim-majority countries, and the survival orientation is proved to be one of the strongest predictors of negative attitudes towards homosexuality.

Adamczyk and Pitt, however, did not find significant differences in attitudes towards homosexuality between members of other than Muslim religion denominations. It is intuitive though that the attitudes of Buddhists might be different from the ones of a Christian, for instance. We need to explore other researches which examine the relation between religiosity and the religion denomination in particular, and attitudes towards homosexuality (following Adamczyk and Pitt, we will call it later ATH).

Jäckle and Wenzelburger (2015)[60] conducted a multilevel analysis based on data of 78 countries from the two waves of the World Values Survey (1999-2004, 2005-2009). They measured the relationships between religious denomination, religiosity and the ATH. It is interesting, however, that, using the same data as Adamczyk and Pitt and almost the same variables of interests (both dependent variable – justifiability of homosexuality, and independent variables – level of religiosity and religion denomination), yet they received a slightly different results. It partially might be due to more excessive measures of religious affiliation in their research. They included more religion denominations and scaled them from 1 to 6 based on to which extent they promote so-called homonegativity (negative attitudes towards homosexuality). Here is their scale, with Islam as the most homonegative religion and atheism as the least:

"1. Islam

2. Catholicism/Protestant Free Churches/Orthodox Christianity

3. Traditional (European) Protestantism

4. Hinduism

[60] Jäckle and Wenzelburger 2015: 207-241

5. Buddhism/Taoism/Confucianism

6. Atheism"[61]

Their regression results supported the hypothesis made by the authors in abovementioned scale. The highly significant negative influence on religion on ATH is strongest in Muslim case which is in agreement with Adamczyk and Pitt results. The differences in ATH between members of other religion denominations turned out to be more significant than in Adamczyk and Pitt research, however. Thus, Orthodox Christians and Free Church Protestants proved to be more homonegative than Catholics and Traditional Protestants, and the latters are more homonegative than Buddhists and Hindus. The atheists turned out to be the least homonegative group, as was expected by researchers. The general level of personal religiosity also affects ATH in a negative way, though to which extent it highly depends on particular religion denomination. These findings further support the argument about importance of particular religion denomination when we explore the ATH. Inglehart, for instance, measured only general level of personal religiosity and did not paid specific attention to the religion denomination. Though the last two researches demonstrate that, at least in case of ATH, this focus is indeed important. Thus, we should not worry too much about strong religiosity of a Buddhist as we should do about the keen religious spirit of a Muslim, if we care about gay rights. However, the slight discrepancies between two researches in terms of differences in ATH between members of other than Muslim religion denominations suggest that we should replicate this analysis in our own research.

One more research contributed to the field of relations between religion and homosexuality. Rimac and Štulhofer (2008)[62] explored the determinants of homonegativity in Europe using data from the European Values Study (1999/2000). As their dependent variables, they used two variables – "Neighbors: Homosexuals" as an indicator of social distance towards homosexuals, and the abovementioned "Justifiable: Homosexuality" as an indicator of justification of homosexuality. According to their findings, "social distance towards homosexual persons was predicted by the Eastern Orthodox religion, a greater degree of urbanization, economic development and immigration". Thus, as for religion denominations, Orthodox Christianity demonstrated to be the most homonegative and the Protestant Christianity – the least one (since this research was conducted on data from EU, no Muslim or Buddhist religion denomination was included). However, negative role of immigration on ATH with borderline significance hints that Islam might play a role there since many immigrants were Muslims. Another research is required to support this argument, however. The positive role of economic development on ATH gave further support for

[61] Ibid

[62] Stulhofer and Rimac 2009:24–32

Inglehart's argument. Urbanization could be considered part of economic development of the country and thus influence ATH in indirect way, but also cities, because of its big size and active social life, could give homosexual people more opportunities to socialize on the one hand and to become relatively invisible among the all citizens – on the other (Lauria & Knopp, 1985)[63].

The possible role of immigration in shaping negative ATH in EU suggests us to explore another detailed research. Röder (2015)[64] investigated the immigrants' ATH in Europe using data from European Social Survey (ESS) from 27 EU and EFTA countries. Her dependent variable is "gay men and lesbians should be free to live their own life as they wish." As independent variables, Röder included "Immigrant Groups" (divided by generation and by religion denomination), "Religiosity and Attendance" (the level of personal religiosity and the frequency of church attendance), "Length of Residence", and the "Differences in acceptance of homosexuality between host and origin country" (the last variable came from World Values Survey). Röder main finding is that Muslims and to a lesser extent other non-Christian and Eastern Orthodox migrants hold overall more negative ATH. With Muslims, it is the least supportive of homosexuality immigrant group in the first generation, and along with the Eastern Orthodox Christians the only immigrant group of the second generation who holds the negative ATH even after controlling for demographic composition and individual-level religiosity. Thus, the Muslim migrants hold the most homonegative attitudes and their views persist even in the second generation. These findings are indeed very important since they indicate that even in the countries with majority of population supports homosexuality, some population groups could persist in their homonegative attitudes. It is also demonstrated that the effect of homonegative Islamic values on Muslim immigrants is stronger than that of self-expression values of the host countries.

The fact that in general Muslims expressed the most homonegative ATH which persists even in the next generations of immigrants is supported by plenty of other studies (Simon 2008[65]; Stulhofer and Rimac 2009[66]; Gerhards 2010[67]; Van den Akker, Van der Ploeg, and Scheepers 2012[68]). All of these findings once more suggest the high importance of religion and Muslim religion denomination in particular in shaping negative ATH, with stronger impact on ATH than self-expression values and economic development, for instance.

One more significant research focused on relationships between ATH and religiosity has been done by abovementioned Pew Research Center in 2013[69]. Thus, PRC also suggested and

[63] Lauria and Knopp 1985: 152–169
[64] Röder 2015: 1042–1070
[65] Simon 2008: 87–99
[66] Stulhofer and Rimac 2009:24–32
[67] Gerhards 2010: 5–28
[68] Van den Akker, Van der Ploeg and Scheepers 2012:64–68
[69] Pew Research Center 2013

discovered strong empirical evidence on relationships between religiosity and acceptance of homosexuality. Based on their measurement, they concluded that "there is far less acceptance of homosexuality in countries where religion is central to people's lives – measured by whether they consider religion to be very important, whether they believe it is necessary to believe in God in order to be moral, and whether they pray at least once a day"[70]. Thus, PRC included in their research the general religiosity and the frequency of religious activity (praying) and did not divide their respondents by religion denominations. However, they still were able to produce notable results, demonstrating the negative correlation between the religiosity and ATH.

However, there are some notable exceptions in their results. For example, Russia got a low score on religiosity on PRC scale, but only 16% of Russians are ready to accept homosexuality. In the contrary, Brazil and Philippines received high scores of tolerance towards homosexuality despite their high religiosity levels in PRC report.[71]Therefore, religiosity might play an important role in public opinion on homosexuality, but it cannot be the only factor which influences it.

In addition, we should remember that PRC data come from 39 countries from all around the world. It is indeed good research in terms of representation of different parts of the world in one research. The data is, however, are far from being comprehensive and many important countries (for instance, China) are not represented in their data. Therefore, more comprehensive analysis is required. For example, combined datasets from World Values Survey and European Values Surveys might offer us data from more than one hundred countries.[72]

As was mentioned above, general religiosity and Muslim religion denomination play a significant negative role in shaping negative ATH. If religiosity and Muslim religion denomination are the main determinants of homonegativity in the world, however, how could we explain such cases as Russia and China, both of which are relatively secular and yet highly homonegative nations? Therefore, if religion in general and religion denomination in particular are important in shaping ATH, it is not the only important determinant though. Which could be the other ones, then?

Some scholars argue that political regime in general and democracy matters when we are speaking about gay rights. For example, Omar G. Encarnación found the strong correlation between democracy and gay rights, e.g., that in modern world gay rights are mostly embraced in democratic regimes and suppressed in authoritarian ones.[73] Correlation does not imply causation, however, and, therefore, Encarnación tries to find further evidence about causal effects of democracy on gay rights and homosexuality acceptance in particular society. Thus, he argues that process of democratization fostered the evolution of so-called "citizenship", or membership in polity, and active citizenship

[70] Ibid
[71] Ibid
[72] European Values Study
[73] Encarnación 2014: 90-104

then protects repressed or marginalized groups, like poor, disabled, racial, ethnic and religion minorities, and homosexuals.[74]Encarnación states then that "democracy also facilitates gay rights by making possible a vibrant and robust civil society that can exist only within a political framework allowing for freedom of association".(Encarnación (2014), p.99) Therefore, strong civil society, and sometimes even civil disobedience to authorities is a necessary prerequisite of protection and promotion of gay rights.[75] Indeed, if we remember the Stonewall riot in 1969 in New York City,[76] which was followed next year by the first world's gay pride parade in history, this argument might seem more plausible[77].

Gay rights protection in democracies might be facilitated also by intra-civil society collaboration, e.g., by fruitful relationships between gay rights and human rights movements, or between LGBT and feminist movements.[78]It is hardly possible to think about such collaboration in authoritarian regimes where the even existence of strong civil society and any human rights movements is highly questionable. Encarnación states further that "gay rights also depend on a strong judiciary and the rule of law, hallmarks of any healthy democratic polity". (Encarnación (2014), p. 99-100) Thus, democracy is necessary prerequisite for gay rights because it provides the better opportunities for gay people to advocate for their rights in courts, party system, through LGBT organizations, and gives them more ways for self-expression because of the changed social environment.[79]

Therefore, it is not democracy itself which fostered the gay rights protection in Western countries, but the attributes which are necessary for democracy, facilitated the promotion of gay rights as well. According to Encarnación, the most important of these attributes are strong civil society, independent judicial system and the rule of law, and collaboration between different human rights social movements. Based on Encarnación arguments, it makes sense to include all of these variables into analysis to discover which of these factors plays the strongest role there and which are less important for gay rights.

However, Encarnación's analysis suggests, that countries ruled by authoritarian, non-democratic regimes, provide less or no opportunities for homosexuals to advocate for their rights. That could explain why such countries as Russia and China, with relatively secular populations, still face problems with gay rights and give no any legal recognition to same sex marriages.

However, democracy may be necessary, but not sufficient condition for gay rights recognition and protection. For example, India became a democratic and secular republic in 1950

[74] Ibid
[75] Ibid
[76] History. This Day in History
[77] Encarnación 2014: 90-104
[78] Ibid
[79] Ibid

with introduction of its constitution. However, homosexual relations are still illegal in India nationwide from 1861 with penalty up to 10 years. Indian Supreme Court appealed and overturned this code in 2009, thus making homosexuality legal but only for four years and only on the territory of Delhi, and even this decision was revoked already in 2013. Therefore, now homosexuality is still illegal in India, and more than fifty years of democracy didn't help India to protect gay rights and to give a legal recognition to the same-sex marriages – inversely, the homosexual relations are still penalized in India. Therefore, even if political regime matters for gay rights and recognition of same-sex marriages, it is not the only factor which influences this issue.

Another flaw in Encarnación research is that he explores mostly the effects of democracy on legal recognition of gay rights and pays little attention to the value change which leads to homosexuality acceptance in society and might precede the legal issues. Surely, legal recognition of same-sex marriages, and protection of gay people from discrimination based on their sexual orientation, made gay people feel safer and their lives – much easier. However, in general law change does not mean value change – e.g., negative attitudes towards homosexuality in particular society might persist despite of legal recognition of gay rights. Therefore, we need some measures of value change which could demonstrate that not only law protects gay people from discrimination, but societal attitudes towards homosexuality had also been changed during last fifty years in most of Western democracies.

Thus, we come back to Inglehart who argues that political and law change is usually preceded by a value change. Therefore, according to him, societal values towards homosexuality should change first in order to allow the legal recognition of gay rights and same-sex marriages. Still, we need to keep in mind the political regime and the legal matters associated with it as important predictors of ATH.

What other scholars said about this legal framework for gay rights, importance of which stated by Encarnación? Adamczyk and Pitt (2009) tested this legal framework in their research but did not find a significant effect. Jäckle and Wenzelburger (2015) also explored this issue using more detailed framework. They included into their analysis as explanatory variables the following ones: a fact that a country has signed the Declaration on Human Rights, Sexual Orientation and Gender Identity as introduced to the General Assembly of the United Nations; the number of years since decriminalization of homosexual activities; and a composed index from the International Lesbian, Gay, Bisexual, Trans, and Intersex Association (ILGA) which basically contains all basic gay rights granted in particular country (same-sex marriage or other registered partnership, child adoption by homosexual couples, inclusion of sexual orientation in antidiscrimination labor laws, etc.) Thus, their so-called "legal index" comprised all issues highlighted by Encarnación and, intuitively, highly correlated with democratic political regime. What is important, however, that this legal

index, along with UN Declaration variable, appeared to be highly significant. Thus, their findings gave an additional support to Encarnación's argument: "the more legal rights granted to homosexual people, the more positive attitudes the general population has toward homosexuality".

Some scholars offered another explanation for possible differences in ATH around the world. Thus, Huntington divided the world into eight major "cultural zones" based on specific cultural differences which were persisted through centuries.[80] These zones were shaped by religious tradition special for each particular zone, and by other ideologies (e.g., Communism). According to Huntington, there are following eight cultural zones in modern world: Western and Orthodox Christianity, the Islamic world, and the Confucian, Japanese, Hindu, African, and Latin American zones. This typology, however, is not quite consistent with a real world dynamics in our discussion. For example, Huntington did not distinguish between Catholic and Protestant societies (in his typology, they are united into one cultural zone – the Western Christianity), but Protestant and Catholic societies, as was noted above, have many significant differences in their values, including views on acceptance of homosexuality, therefore it makes sense to separate them into two different cultural zones, as actually was already done by Baker and Inglehart.[81]

Inversely, Japanese society, even if it distinct from Confucian ones in its religion (dominant religions in Japan are Shintoism and Buddhism), shared many cultural similarities with Chinese and other Confucian societies for centuries, and, therefore, Japanese and Confucian cultural zones could be united into one zone. In addition, we should bear in mind, that many countries in Northern, Western and Eastern Africa are Muslim countries nowadays, therefore, the difference between Islamic and African cultural zones might turn out to be not so significant. However, in general, division between different cultural zones will be important for our analysis. In addition, it would be useful to include into our analysis one more cultural zone – Communist, based on Inglehart and Baker's typology.[82] Even if Communist ideology is relatively new in the world compared to traditional religions, it had its enduring influence on huge part of the world, from Eastern Europe and Russia to China and North Korea. Therefore, the cultural zones for our analysis will be the following nine ones: Communist world, Protestant, Catholic and Orthodox Christianity, the Islamic world, and the Confucian, Hindu, African, and Latin American zones.

The importance of Communism in shaping negative ATH was discovered in the abovementioned research by Jäckle and Wenzelburger (2015). They included Communist heritage as an explanatory variable on the aggregated level. In their findings, the residents of (-post) Communist countries turned out to be significantly more homonegative which could explain the

[80] Huntington 1996
[81] Inglehart and Baker 2000: 19-51
[82] Ibid

cases of Russia and China. Another interesting finding in their research that, because of the negative interaction effect between Communism and religiosity, "religiosity increases homonegativity less strongly in (post-) communist countries than in other countries, although the level of homonegativity is higher in (post-) communist countries" (quotation) because of the Communism itself. Thus, by introducing into research different cultural zones and Communist ideology in particular in addition to religion and religion denomination, more discrepancies in ATH could be explained.

After exploration of bunch of researches concerning ATH, we discovered that their opinions about the reasons of this "great divide" on homosexuality are in turn divided significantly. Some scholars, as Encarnación, argued that type of political regime and legal framework matters when we are speaking about gay rights, and the democracy fostered the legal recognition of gay rights and same-sex marriages by creation of specific political and social conditions necessary for it, while dictatorships hinder the gay rights recognition because they lack these specific conditions. However, Encarnación argued mostly about legal recognition of gay rights and not about value change of societal attitudes towards homosexuality. Inglehart stated that political and law change in particular society is usually preceded by value change though. His self-expression and secular-rational values are one of the main predictors of positive ATH. Inglehart and Baker emphasized the importance of modernization and economic development for changing of societal values, in particular towards acceptance of homosexuality. However, other scholars emphasized a significant role of religion and religion denomination in shaping negative ATH. Thus, Jäckle and Wenzelburger (2015), Adamczyk and Pitt (2009) discovered the high negative impact of personal religiosity in general and Muslim religion denomination in particular on ATH. Before them, Rimac and Štulhofer (2008) investigated the main determinants of homonegativity in Europe and stated a significant role of religion denomination and immigration in shaping negative ATH. Echoing these findings, Röder (2015) conducted research about immigrants' ATH in EU and discovered that Muslim immigrants hold persistent homonegative views despite of positive ATH of majority of population in the host country, and that these negative views persist also through generations of Muslim immigrants. This finding suggests the high importance of religion in general and Muslim religion denomination in particular in shaping negative ATH, which could overweight the positive influence of self-expression values, political regime, legal framework and economic development on ATH.

Finally, Huntington offered a concept of cultural zones which shaped population values throughout the centuries based on religion beliefs and geographical position. Inglehart and Baker developed this concept by including Communist cultural one based on relatively new ideology of Communism which could nevertheless play an important role in shaping population attitudes.

Jäckle and Wenzelburger (2014) found an empirical support to the argument about negative influence of Communist ideology on ATH.

However, some questions about ATH remained unanswered. For example, what is special about India, where criminal penalty for homosexual activity is still implemented into the law, despite of fifty years of democracy in this country and despite of relative tolerance of Hindu towards homosexuality? In the contrary, why Latin America, with its relatively high religiosity (and since most Latin American countries are Catholic, and Catholics are not such tolerant towards homosexuals as Hindus, for instance), has made a substantial progress with respect to homosexuality acceptance and gay rights? Which factors play a significant role in these cases which were overlooked by researchers? The implications of different cultural zones and historical patterns might help there.

Speaking about effects of religion, impact of general religiosity and particular religion denomination was explored excessively. However, what about religion attendance and active church membership, for instance? We might expect that ATH of a particular person who visited church one time per year and every week, might be different. In addition, the church clergy could have different ATH than its parish, too. The importance of religion attendance and church membership might vary in different religion denominations as well. We might also expect that people who place their confidence in religion over science, churches over other institutions, and religion leaders over other political leaders, might share more homonegative views, than other religious believers, though. All these hypotheses could be tested in our own model. Before testing it, however, we should try to understand the mechanism behind value change in general and ATH in particular. To do it, we need some theoretical background.

4. Theoretical Background: Attitude Change

Our research question is why contemporary world is divided so sharply in question of ATH, e.g., why most of the developed countries established legislation which more or less protects gay rights by now, while in most of developing countries homosexuality is still illegal? To answer this question, however, it is important to understand which factors influence public opinion on homosexuality in the most significant way. Literature review suggested that the main factors which affect ATH are religiosity in general and religion denomination in particular, political regime, including legal framework, and economic performance. Cultural zone, to which a certain country belongs, and Communist ideology in particular might play role in shaping ATH as well.

However, if high religiosity and Muslim religion denomination are associated with higher levels of homonegativity, could we claim that they actually *cause* the negative ATH? Everything is not so simple, however. Thus, monotheistic religions, Islam and Christianity in particular, might affect personal attitudes in general and ATH in particular, changing ATH in a negative way. As we stated in our historical review, almost all pagan cultures and civilizations either had neutral or positive ATH, with a slight exception of Ancient Egypt. Homonegativity as a new attitude and persecution of gay people followed by this attitude change, was introduced in our world only with Christianity and Islam, we should not forget that. However, if we want to have a deeper understanding of our subject, we need to explore the actual mechanisms of these attitudes and values changes. How new religions could change population attitudes so fast and drastically, what mechanism was involved in it?

The same question is required to be answered if we speak about modern value change, which lead to positive ATH. What was the force behind this change which was so powerful to overturn the two millenia of negative influence of religion over people's minds? Inglehart associated it with post materialism and economic development. Indeed, post industrialization, economic performance and secularization might be related positively to this value change. However, same as with religion, we do not observe the exact causal mechanism, *how* this value change happened. To understand it, we need to investigate, what attitudes and values actually are, and how they could be changed in general, and then to apply this knowledge to ATH. For this purpose, we need some insights from *social psychology*. Why psychology, then? Since we deal with personal values and attitudes, and this topic by its nature is referred to psychology.

In this paper, we used terms "attitudes" and "values" interchangeably, but we actually need to see also the difference between attitudes, values and beliefs. Thus, in psychology *attitude* is a negative or positive evaluation of any particular object by the individual (Fazio, 1990[83]; Fishbein & Ajzen, 2010[84]). *Belief* is a 'cognitive component' (Heberlein, 2012[85]) in the individual's mind, which determined what is believed to be true about the attitude object by this individual. Thus, a statement "I do not like homosexuals" is an attitude, but a claim that "Homosexuality is a dreadful sin" is already a belief. *Values*, in turn, are broader, than attitudes, more stable and usually are not confined to any particular object. Thus, negative attitudes and beliefs about homosexuality could be a part of broader Christian or Muslim values, which are disapproving of homosexuality. We will focus on the attitudes and their change, since attitude is easier to change, than beliefs and values, and they are more susceptible to an external influence, than values and beliefs (Heberlein, 2012).

[83] Fazio 1990: 74–109
[84] Fishbein and Ajzen 2010
[85] Heberlein 2012: 583–585

We should bear in mind, though, that attitude change could also be a part of broader value or beliefs change. However, if we are about to understand the mechanism of attitude change, it could give us useful insights about the reasons behind changes of systems of values and beliefs as well.

To understand the mechanisms of attitude change, we need to know in more details what attitudes actually are and how they are constructed. We have several theories from social psychology about it. Thus, MODE (*motivation and opportunity as determinants*) model (Fazio, 1990[86]) and the meta-cognitive model (MCM, Petty et al., 2007[87]) view attitudes as long-term memory structures. Thus, these theories treat attitudes as relatively stable entities which are not likely to be easily changed over time. In the contrary, Schwarz (2007)[88] proposed that attitudes are evaluative judgments which could be formed instantly based on currently accessible information. Conrey & Smith (2007)[89] state, that attitudes are "time–dependent states of the system" rather than "static 'things' that are 'stored' in memory" (p. 718). Therefore, there is a dispute in a scientific community about stability versus changeability of attitudes. We need to be aware of both of these polar views since the attitude change theories depend on how attitudes are actually perceived.

Thus, Petty et. al (2006)[90] offered PAST ("*past attitudes are still there*") model based on their MCM model. According to this model, even if the attitude change happened and individual does not consider her old attitude appropriate anymore, this attitude still lingered in her memory however, but is "tagged" as false. For example, a particular person used to smoke a lot and liked it (thus, this person had a positive attitude towards smoking in the past), but, after an exposure to the knowledge about health hazards of smoking, this person elaborated a new, negative attitude towards smoking. However, according to PAST model, her former positive attitude would not disappear but will be stored in her memory as "invalid". What is important about this model that it predicts ambivalent attitudes after attitude change if the new attitudes are opposite to the old ones. This is because old attitudes still linger in the human memory and this could cause the feeling of uncertainty at the unconscious level. Stronger these old attitudes were and faster the change happened, longer this lingering effect will last and more ambivalent new attitudes will be. It could be applied directly to ATH. Thus, if negative ATH were stored in some person's memory for their whole life and then suddenly attitude change happened, the old negative associations with homosexuality will be lingered in memory for a long while, causing the implicit ambiguity of new ATH instead of explicit approval. It might explain why even in the West nowadays we still quite

[86] Fazio 1990: 74–109
[87] Petty, Briñol and DeMarree 2007: 657-686
[88] Schwarz 2007: 277–287
[89] Conrey and Smith 2007: 718-735
[90] Petty, Tormala, Briñol and Jarvis 2006: 21–41

often observe the cases of homonegativity and hate speeches against homosexuals. Memories and past attitudes do not die fast.

However, this PAST model only provides us with knowledge of this "lingering effect" of old attitudes after attitude change but does not explain the exact mechanism of this change. This model could suggest to us that, probably, time and generational effect is required in order to achieve the complete change in ATH to the positive, but, again, we still do not know how this change happened. To understand this, we will explore another model of attitude change – APE (*associative-propositional evaluation model*). This model was proposed by Gawronski & Bodenhausen (2006)[91] and deals with *explicit* and *implicit* attitude change. In this model, associative evaluation, as type of a mental process, is a basis of implicit attitude which could be activated automatically when person encounters a relevant association. Thus, if a particular person associates homosexuals, say, with HIV, then any mention of homosexuals would bring into her mind also HIV issue. Then, if this person has a negative attitude towards HIV, which is actually reasonable, this attitude would pass upon homosexuals as well, since in her mind, at the unconscious level, homosexuality and HIV are connected. However, different associational patterns may be activated depending on the context, and they also could be changed if new association would replace the old one, because new one is, for example, more impressive to a particular individual. Thus, if association of homosexuals with a fashion would replace their association with HIV, then the person's ATH would change to the better, because of these implicit associations. It is worth to note also that these associative evaluations are independent of the personal beliefs about what is true or false. Thus, a particular person could express a negative ATH because of the association of homosexuals with HIV even if this person consciously considers homosexuality to be a normal thing. In the contrary, other person might show positive ATH because of her association of homosexuals with fashion, even if she disapproves of homosexuality because of her religious views. What could cause the attitude change in this case, then? As was mentioned above, it is the changes in associative structure (e.g., association of homosexuals with HIV is changed to association of them with fashion) or in the direct stimulus which activates particular associations. Adding positive associations to an attitude object which change attitude to the better, is called evaluative conditioning.

Another side of the coin, propositional reasoning, is a basis of explicit attitudes. Such evaluations are based on logic and used to make judgements. The connection between propositional reasoning and associative evaluation is explained by Strack & Deutsch (2004)[92] who stated that individuals pick up their associations and transform them into propositions (thus, positive association with gay people might be transformed into a proposition "I like gay people", and vice

[91] Gawronski and Bodenhausen 2006: 692–731
[92] Strack and Deutsch 2004:220-47

versa). However, what is different from associative evaluation, those propositions are checked for validity using logical reasoning. After they passed this "validity test", so-called "truth values" are assigned to them. The proposition is usually judged as valid if it is consistent with other relevant propositions related to this issue. Thus, the only one proposition "I like gays" could be not enough for our brain to accept if all other propositions about gays that we acquired during our lifetime, tell us that "gays are bad". What is important here is that propositions are drawn from associations, but, unlike associations, they are checked for validity by our brain and might be used to make judgements.

The transformation of associative evaluations into propositions might explain how implicit attitude change could contribute to an explicit attitude change (Gawronski & Bodenhausen, 2006)[93]. Thus, if more and more new positive propositions about homosexuals came to our mind, they could overweigh the old negative propositions, and this way attitude change may happen. However, the opposite case, when a particular proposition may contribute to a change in associative evaluations, is also possible. Thus, just an acquaintance with a cultural or religion stereotype about certain minority groups may automatically create negative associations with those minority groups (Devine, 1989[94]). The power of this reasoning might be so enduring that the members of this discriminated minority group might express automatic negative reactions towards other members of their group, or even towards themselves (Siebler et al. 2010[95]). We need this theory about associative evaluations and propositional reasoning to be able to distinguish between two possible ways of attitude change, though. The first way is when new positive associations could change old negative stereotype, and the other way, when, in the contrary, a proposition based on that stereotype creates automatically negative associations.

We will be, therefore, concentrated on two different ways of attitude change. First one deals with stereotypes rooted in culture and religion, which could contribute to negative propositions about homosexuality, which, in turn, automatically creates negative associations with homosexuality. The second way is about the informational impact on associations which could create new, positive associations, which in turns contributes to change of propositions and, then, attitude change. To understand this mechanism, some more insights from social psychology are required.

We need to be familiar with *heuristics* in order to understand better the process of attitude formation and change. In psychology, heuristics refers to formation of beliefs and judgements, and

[93] Gawronski and Bodenhausen 2006: 692–731
[94] Devine 1989: 5-18
[95] Siebler et al. 2010: 105-110

to the decision making process as well.[96] Heuristics usually deals with automatic, intuitive judgements, which are similar in their nature to the automatic associations we discussed above[97]. However, all human judgements are restrained by the available information and cognitive limitations, which lead Herbert A. Simon to his idea about *bounded rationality*[98]. Availability restrictions related to *availability heuristics* which was discovered by Tversky and Kahneman in 1974[99]. The very basic idea from availability heuristics is that in the process of formation judgements or attitudes depends on how many examples associated with assessing attitude object come to person's mind, e.g., how *familiar* this person with this attitude object. This concept, in turn, leads to *familiarity heuristics*, which was developed on the basis of availability heuristics. In familiarity heuristics, familiar is favored over the strange and novel[100]. This type of heuristics might be very useful if we apply it to our field.

Thus, there is a *mere exposure effect* which could change attitudes by a mere exposure of a particular person to an attitude object (Zajonc, 1965[101]). Citing Petty et al. (2006, p. 623):

"The more often a person encounters a novel (usually neutral) attitude object, the more favorable he or she is likely to evaluate that object; this effect is stronger when exposure to the object is subliminal rather than supraliminal."

Subliminal refers to unconscious here and supraliminal – to conscious. Thus, we could say that mere exposure stronger affects implicit attitudes through associations, unconsciously. Familiarity makes heart to grow fonder, then. Familiarity and mere exposure effect may play role in formation of evaluative judgements as well[102]. Bohner & Dickel (2011) stated that subliminal repeated exposure to a particular attitude object "may affect associative evaluations outside of conscious awareness; this, in turn, may provide the basis for deliberate evaluative judgments" (Bohner & Dickel, 2011, p. 399-400). Zebrowitz et al. (2008) tested this effect on a group of white students who were repeatedly exposed to the black faces. Later, these students found black faces more attractive than those students who were exposed only to white faces, or not exposed to any faces at all.[103]

[96] Lewis 2012
[97] Bazerman 2017
[98] Simon 1991:125-134
[99] Tversky and Kahneman 1974
[100] Gilovich, Griffin and Kahneman 2002
[101] Zajonc 1965: 269-274
[102] Bohner and Dickel 2011: 391–417
[103] Zebrowitz, White and Wieneke 2008:259–75

In addition to familiarity heuristics, here is an *expertise heuristics* (i.e., "experts are usually correct"), which applies that persons derive their attitudes from the experts' statements and judgements (Petty & Wegener, 1998[104]). Expert could be any person who exerts a certain authority over person's judgements and whose attitudes are trusted. It could be scientist, politician, or religious leader. The most important characteristic of a credible expert is her trustworthiness in the eyes of her trustees, then.

Now, having this theoretical basis from social psychology, we could apply it to ATH. Familiarity could play a double role in shaping ATH, though. On the one hand, people's tendency to favor familiar over strange and novel may result in xenophobia towards any strangers and outgroups, including homosexuals. On the other hand, when stranger is familiarized, he is not feared anymore.

Expertise heuristics works in a slightly different way. When, for example, religious leaders preach against homosexuality, this could cause homonegative attitudes among religious believers in the eyes of those these leaders have a certain authority. In the contrary, when celebrities and politicians stand for homosexuals in public space, the expertise heuristics works for homosexuals changing ATH to the better.

Could it be, however, there any causal mechanism which could help us to understand how ATH actually shaped? For simplicity, let us assume that from the beginning, any particular individual is not prejudiced against homosexuals, and, therefore, has neutral ATH. Thus, if person has no certain opinion about homosexuality, how then it could turn out to be positive or negative? Obviously, the personal attitudes could be shaped by the external influences, by the environment where this person lives and acts. Then, we could observe two different situations. First, imagine person who lives in a society where homosexuality is illegal, and, therefore, gay people, like criminals, hide and become invisible for a general population, but politicians and religion leaders, in the contrary, could freely preach against homosexuals. Here we could observe the work of two psychological effects discussed above: availability heuristics and expertise heuristics. Since gay people are hiding and living in a closet in societies which made homosexuality illegal, there are no any available examples of real homosexuals for the majority of population. Thus, homosexuals moved from the category of familiar to the category of strange after homosexuality is declared to be illegal. In the contrary, religious leaders and politicians are free to speak and preach against homosexuals and, therefore, because of expertise effect peoples' ATH changed. That could explain how ATH were changed from the neutral and positive during the pagan times to extremely negative after introduction of Christianity and Islam. First Roman Christian emperors and Arab Muslim caliphs made homosexuality illegal and punishable by death, as was stated above in the historical

[104] Petty and Wegener 1998

review. Thus, homosexuals were excluded from the social life and became invisible, but religious preaches against them m in the contrary, flourished. Thus, homonegativity was spread widely in the society, but positive ATH were not heard since no one could defend homosexuals, because homosexual activity itself is illegal and any attempts to justify it could be considered criminal offences as well. In addition, there is a negative impact with regard to ATH on associative evaluation and propositional reasoning. The mere existence of the negative stereotypes about homosexuals rooted in different cultures by religion, created automatic negative association with homosexuality among the population, according to APE model discussed above. The absence of any positive associations because of homosexual hiding in a closet only made things worse.

Imagine now a different situation – how ATH would be shaped in the modern Western society. There, homonegative speeches and opinions are not banned, but homosexual activity is legal in majority of the countries, gay people could demonstrate their sexuality openly, and, more important, could defend themselves in public space. Therefore, the familiarity heuristics began to play its role. Homosexuals were reintroduced in Western society and familiarized to the public after they left their closet. Thus, nowadays in the Western society any particular person could see who gay people really are, and it would be not so easy for religion leaders to make people believe in any accusations against them. Western media report homosexuality as mundane issue, TV series and movies include gay characters more and more often, celebrities reveal their sexuality publicly by "coming outs" – in all this environment, homosexuals became more and more familiar to the population. Moreover, in person's closest circles homosexuals exist openly nowadays – as friends and acquaintances, classmates and colleagues, neighbors and family members…Close acquaintance with real gay person could work better against prejudices and homonegativity than any justification of homosexuality based on science or morality. However, the latter is also widespread in the western societies nowadays: more and more scientists, politicians and even religion leaders speak for homosexuality. That could make an expertise heuristics mechanism work as well. In addition, APE model also predicts the attitude change: since homosexuals became more and more familiar to the public, many new positive associations are created which could overturn old negative stereotypes about gay people rooted by religion. However, because of the PAST model effect, the ambiguity ATH would linger for a while until societal ATH will be completely changed.

What could we derive from this? Firstly, legislation and legal framework matters. To make homosexuality illegal and, thus, to silence gay people and to make them invisible, is a very effective way to spread homonegativity in a society. In the contrary, legal framework which allows gay people to live openly could create more positive ATH in a society. Legislation matters also with a respect to religion. Thus, legislation based on religion, like sharia law, allows religion leaders to

sentence homosexuals to prison or even to death, while secular legislation excludes any influence of church on the law.

Second important factor is a dominant public discourse about homosexuality in a particular society. This factor is highly correlated with previous one, legislation, since in the countries which criminalize homosexuality it is hardly possible to have any public discourse about homosexuality except negative one. However, there are many countries which do not punish people for homosexual activity but also do not recognize gay marriages and do not protect gay people from discrimination (as in many Eastern Europe countries). In these societies, public discourse might matter. The public discourse about homosexuality is determined by ideology. Thus, the main factor responsible for shaping positive ATH is an exposure to the western liberal ideology, represented by the Western media. In the contrary, an exposure to a homonegative ideology, like Communism or monotheistic religion (either Islam or Christianity), represented by religious preaches or Communist government propaganda, is a key factor in shaping negative ATH.

We could test all of these hypotheses in the model. Before it, let us explain what and how we will exactly test. We will observe the effects of familiarity and expertise heuristics in shaping ATH. Our hypotheses there will be:

H1: More familiar a particular person with homosexuals, more positive ATH she will express (familiarity heuristics).

We should note, however, that familiarity, or mere exposure effect, *does not* mean that all personal experiences with homosexuals should necessarily be positive experiences. Homosexuals, as all other groups of people, come in all varieties, and life situations can be very different either. There could be, for instance, sexual harassment of straight men by gay men, or just some problems with homosexuals which do not relate to their sexuality, but to their personality. However, familiarity hypothesis stated that, despite all of these possible varieties of situations, in general the effect of mere exposure of any particular person to homosexuals on this person's ATH is positive. Why? Firstly, familiarity destroys the "fear of the stranger", the xenophobic effect which otherwise might take place. For instance, when we get to know gay people as our neighbors, colleagues, friends, relatives, we see that they are the same human beings as we are, with their own advantages and flaws. It is hard to believe that they are "messengers of hell" or "horned demons" as religious propaganda might claim and, in the absence of real evidence, it would be difficult to disapprove these claims, even ridiculous as they are. If we know homosexuals as real people from our social environments, it would be more difficult for us to believe exaggerated antigay propaganda, like "all homosexuals are pedophiles", etc. We might find our gay neighbor not the best neighbor in the

world, but not a monster though, as religious homonegative propaganda might depict this person. Therefore, familiarity effect means that in general more exposed we are to experiences with homosexuals in our lives, irrespective positive or negative ones, more positive our ATH are. It is because the "fear of the stranger", the xenophobic effect disappears in presence of familiarity. However, the opposite claim "less familiar a particular person with homosexuals, more homonegative her attitudes are" is a controversial one since the mere lack of familiarity with gay persons does not necessarily mean homonegativity in the absence of anti-gay propaganda, for instance.

H2: More frequently a particular person is exposed to homonegative speeches and more confidence she has in it, more homonegative this person is (expertise heuristics).

It is worth to note that when an exposure to anti-gay propaganda is combined with the absence of homosexuals in a public life, e.g., lack of familiarity with them, the impact of homonegative speeches is stronger. It is because negative expertise effect is combined with xenophobic effect here.

How could we test these hypotheses? There are several ways to test familiarity hypothesis. Thus, we could try to observe the impacts of having gay friends or relatives on people' ATH. Either way we might be tempted to test the effect of coming-outs of famous celebrities on ATH. However, we do not have any available data from the surveys which ask questions like "Do you have gay friends or gay relatives?" or "Are any of your favorite celebrities are gay?" Thus, we could not measure these effects directly. It could be a question for the next research, however, to conduct an experiment, where treatment group are people who actually have gay friends and relatives and control group are people who does not have them. For this paper, nevertheless, the legal framework could be a proxy to this issue: if a certain country recognizes gay rights and allows gay people to be open, we could claim that the citizens of his country have more opportunities to know real gay people, than in the country when homosexuality is illegal. Therefore, we could claim that legal recognition of homosexuality and gay rights has a lingering positive effect in shaping ATH. We could use the legal index from Jäckle and Wenzelburger (2015) as a measure of it. According to their results, legal index is one of the important predictors of ATH, and, using it as proxy to familiarity, we could claim, that familiarity plays its role in shaping ATH. However, familiarity effect is not so explicit here, since legal recognition of gay rights might facilitate issues for gay people in other ways as well – by providing more open space for advocating for gay rights, by granting some protection from discrimination, etc. In addition, it is not perfectly clear whether legal

recognition of gay rights precedes societal value change or it is other way around, as Inglehart argued. Jäckle and Wenzelburger's results could suggest at least some causality between their legal index and societal ATH, however. In addition, this legal index at least to some extent could be a proxy to familiarity too, since legal recognition of gay rights and protection of homosexuals from discrimination creates opportunities for gay people to be open in the public space (since it is not punishable by law to be gay anymore) and therefore increases visibility of homosexuals in society in general.

Other way to test familiarity hypothesis might be to measure the effect of the exposure to Western media in general which more and more often broadcast TV shows, series and movies with gay characters. The idea behind it is that if general public who is supposedly not so familiar with homosexual people in general, might be familiarized with them by watching some popular TV show or series. The main criteria to choose these TV shows, series and movies might be following: they should be indeed very popular among the whole population and not explicitly gay-friendly like Queer as Folk or Brokeback Mountain but they should have gay characters or gay themes. Mechanism here is following: people with homonegative views would probably not watch a particular show (like Queer as Folk) knowing beforehand that it is actually a gay show, but if they do not know it from the beginning and already start to watch and then get to know gay characters there, it might actually change their perceptions of gay people in general. Thus, we could try to test the familiarity heuristics effect: the mere exposure to gay characters in these shows could in theory change public ATH. Therefore, we could split our first hypothesis into two separate ones:

H3: A *legal framework* which granted homosexuals with some rights and made them easier to demonstrate their sexuality openly in public space, contributes to a change of ATH to the better.

H4: A mere exposure to TV shows, series and movies which include gay characters, contributes to a change of ATH to the better.

However, empirical test of second hypothesis proved to be somewhat troublesome. Firstly, it was not that easy to collect the relevant data since television networks and channels, for instance, normally do not provide the list of countries where they broadcast which could be used in our cross-country analysis. Secondly, it turned out that some countries where homosexuality is illegal, either banned TV shows which contains gay characters, or remade them and cut the gay characters out. For instance, the last thing happened to popular show Modern Family in Iran. Thus, Iranian TV remade the show frame by cutting gay characters out.[105]New Disney version of "Beauty and the Beast" which contains a gay scene, was banned in Kuwait, and has been given "adults only"

[105] The Huffington Post, Queer Voices. Nichols 2016

ranking in Russia.[106] There were attempts to ban it in Malaysia also, but eventually, after public backlash and criticism, Malaysian government allowed film to screening.[107] However, other films related to LGBT topic, were previously banned in Malaysia.[108]All these facts demonstrate that it is highly probable that countries where homosexuality is illegal, would try to either ban or remade TV shows and series which contains gay characters. Therefore, it made no sense to test a familiarity hypothesis based on exposure to gay characters in TV shows since TV shows with gay characters are allowed in the societies which already gave legal recognition for gay rights and not allowed in the countries which still do not recognize gay rights. However, it again highlights the importance of the legal index as a proxy to familiarity. Thus, legal recognition of LGBT means that society became familiarized with homosexual and absence of this recognition causes invisibility of gay people to general public, turning them into strangers susceptible to homonegative speeches. In other words, in the countries where homosexuality is illegal, society is not familiar with gay people but is familiar with homonegative speeches about them. This issue leads us to other effect that could be tested in our analysis – expertise heuristics effect.

As for an expertise heuristics effect, we should measure the effect of religious and Communist anti-gay propaganda. As for religion, how could we measure this exposure using our data? Personal religiosity and importance of religion in someone's life does not necessarily mean that this person is exposed to religious propaganda. People could be internally religious and place their confidence on holy texts and not on churches and religious leaders. In this case, they might have different views on homosexuality than externally religious people who trusts churches and priests and are exposed to their propaganda. At least, we might expect that internally religious people are less influenced by a religious propaganda in general and in question of homosexuality in particular. In our data, we could use variable "Confidence: Churches" as a determinant of external religiosity and exposure to religious antigay propaganda. We will discuss this issue in details when we will speak of our data and our independent variables in particular.

Exposure to a Communist propaganda is harder to measure, however. This is because many societies which were Communist in the past, now transformed into democracies, and, therefore, we could not observe the effects of Communist propaganda there anymore. Other Communist societies as China or North Korea nowadays are dictatorships more or less isolated from the world, and it is hard to gather any data related to our variables of interest there. However, we have empirical evidence from Jäckle and Wenzelburger (2015) that (-post) Communism is indeed an important predictor of homonegativity. Thus, based on their research, we could again test this claim using

[106] SBS. Blakkarly 2017
[107] Ibid
[108] Ibid

their results. However, since the hypothesis about religion we will discuss in more details in next chapter, let us for now formulate only one hypothesis about Communist ideology:

H5: Communism or Communist legacy in a particular country contributes to homonegative attitudes in this country.

This hypothesis was already tested by Jäckle and Wenzelburger in their research, as was mentioned above. Their results suggest that Communism and Communist legacy is a strong predictor of homonegativity. We could only extend their argument by adding expertise heuristics effect there. Thus, we could highlight the mechanism behind Communist influence on homonegativity. It was Communist ideology and homonegative propaganda by Communist governments which run the expertise heuristics mechanism and changed population's ATH to the worst. In addition, by making homosexuality illegal in Soviet Union in 1934, Stalin excluded homosexuals from public visibility, therefore making familiarity effect to work against them too.[109]

In this section we used theoretical background from social psychology to understand the mechanism of shaping ATH. It was argued that two separate effects – familiarity heuristics and expertise heuristics – are at play there. Familiarity effect was proved difficult to be tested empirically but we used legal index from Jäckle and Wenzelburger as a proxy to it. To measure expertise heuristics, we split it into two parts – Communism and religious homonegative propaganda's effects. As for Communism, its effect on ATH was also already tested by Jäckle and Wenzelburger. We will conduct our own analysis, however, to test the expertise heuristics hypothesis with regard to religion and religious homonegative propaganda. Our main research interest lies in the complicated relations between religion and homosexuality. Our historical review suggested a very important role which monotheistic world religions – Islam and Christianity, in particular – played into changing ATH to the worst after Roman Empire was converted to Christianity and Arab caliphate had risen. Our literature review demonstrated that religion, personal religiosity and religious denomination are the strongest predictors of homonegativity in the world. We will try to understand the mechanism behind shaping of negative ATH by world religions by using global data coming from all over the world.

[109] Healey 2002: 349-378

5. Data and Methodology

The data for this research comes from World Values Survey (WVS) and European Values Study (EVS). WVS which was started in 1981 as a part of EVS is a global research project which includes nationally representative surveys from almost 100 countries. Abovementioned Ronald Inglehart is a director of WVS. As it said on WVS site, "the WVS is the largest non-commercial, cross-national, time series investigation of human beliefs and values ever executed, currently including interviews with almost 400,000 respondents. Moreover the WVS is the only academic study covering the full range of global variations, from very poor to very rich countries, in all of the world's major cultural zones".[110] What is more important for our research, WVS and EVS data also includes a couple of questions about homosexuality which we will use as dependent variables in our model.

For this research, integrated longitudinal datasets from both WVS and EVS which cover survey results from the four waves of the EVS (1981-2008) and the six waves of the WVS (1981-2014), were chosen.[111] This dataset include data from more than 100 countries. We will use both EVS and WVS datasets since not so many European countries are represented in the WVS data, and we need both sources to have a comprehensive picture. In addition, EVS data contains one question about homosexuals which is missed in WVS data – about child adoption by homosexual couples. Time-series of more than thirty years for the available data allows us to explore the time differences in societal ATH, and to observe the directions of the global trend of these value changes. In addition, we will add the last, 6th wave of WVS from 2010 to 2014 in the last part of our analysis to have as comprehensive data as possible.

5.1. Dependent Variables

Our main dependent variable would be "Justifiable: Homosexuality", which is an ordinal variable ranked from 1 ("Never Justifiable") to 10 ("Always Justifiable"). This variable should capture general ATH, as it was done before in abovementioned papers. For the cross-check, we will use two more dependent variables to compare our results with. Second one will be "Neighbors: Homosexuals", which is a binary variable with value 1 ("Mentioned"), which means that person would not like to have homosexuals as neighbors, and value 2 ("Not Mentioned"), which means that person would not mind to have homosexuals as neighbors. This variable is a measure of social

[110] World Values Survey
[111] European Values Study

distance from homosexuals. The important difference between these two variables is their different focus. First variable captures disapproval of homosexuality as a kind of human sexual behavior and way of life in general, while second variable demonstrates attitudes towards real gay people. This difference might appear to be significant. For example, some person may disapprove of homosexual behavior but does not mind to interact with gay people, however. Other person might respect the right of homosexuals to live their lives according to their sexuality but for some reasons would not like to interact with these people still. Thus, cross-check for the results from both of these variables is required.

In addition, we will pick a third dependent ordinal variable "Homosexual Couples – Adopt Children", which ranks from 1 ("Strongly agree" (with adoption of children by homosexual couples)) to 5 ("Strongly disagree"), from the EVS data. This variable included only in the EVS data and does not exist in the WVS dataset. Therefore, we will not be able to draw full comparisons between results from this variable and previous two ones. However, the insights that this last variable could give us are also important.

This third variable could help to capture, to which extent people are ready to accept homosexuality. Thus, even if public opinion towards homosexuality significantly changed for the better during last twenty years, the question of child adoption by same-sex couples still remains "a bone of contestation" in popular discourse, for instance, in US.[112]Therefore, many people may be ready to accept homosexuality as a normal part of human life, and, moreover, would not mind to have homosexuals as neighbors, but they may fail to accept child adoption by homosexual couples. Therefore, it would be useful to have insights from this third variable to realize, whether homosexuality is fully accepted in contemporary societies or still not. We should note also that data for the third variable comes from Europe. Thus, we deal with one of the most accepting of homosexuality region in the world. If, despite of this fact, results would show us the low level of acceptance of child adoption by homosexual couples in Europe, it will be an important issue to ponder about.

5.2. Independent Variables

As for independent variables, it was decided to pick up religious variables as main explanatory variables of interest. However, the effect of general religiosity and religious denomination was well enough measured in previous researches. What was not captured before, it is the effect of religious attendance and confidence in churches has on our dependent variables. The

[112] The Huffington Post

level of confidence in churches and religious institutions, same as the frequency of attendance of religious services, are our means to test our second hypothesis – expertise heuristics. Expertise heuristics effect means that confidence in authorities (in this case – religious authorities) might affect personal ATH. Confidence in religious institutions is an exact measure of expertise effect, frequency of religious attendance is a proxy. Why is it a proxy? Well, while attending religious services, believers are exposed to preaches and other speeches by their local religious officers (priests, imams, etc.) which might affect their personal beliefs and views. If there are any homonegative speeches during religious services, it might affect personal ATH of the attendants. In addition, people who attend religious services on a regular basis might also be more tightly connected with their religious community, and this might affect their personal attitudes and beliefs, including ATH, too, because if the majority of the religious community shared homonegative views, the minority who does not share them might be forced to do it by peer pressure mechanism, etc.

The measure of religious attendance was considered by Adamczyk and Pitt (2009, p. 343) but was rejected by the authors because they were concerned with over-specifying their model with too many moderately correlated independent religious variables. Adamczyk and Pitt used importance of religion and religion denomination as their independent variables. Since we will not use them in our first model, we could try to test the effect of religious attendance on our dependent variables.

As a measure of religious attendance, we had chosen the variable "How often do you attend religious services?" from our merged WVS and EVS dataset. This is an ordinal variable which is ranked from 1 ("More than once a week") to 8 ("Never practically never"). We considered use variables "Active Church Membership" and "Voluntary work for religious organization" too as a measure of religious activity, but they turned out to be almost not correlated with our dependent variables during correlation analysis. Therefore, these variables were rejected. With religious attendance, our hypothesis based on expertise heuristics effect, is that more often a particular person attends religious services, more homonegative she is.

H6: More frequently a particular person attends religious services, more homonegative this person is.

As for confidence in churches, previous researches had shown that Muslim religion denomination is one of the strongest predictors of homonegativity. Does it mean, however, that Islam as religion is necessarily much more homonegative than Christianity? Actually, it does not. The case might be that religion leaders and preachers have more influence on the population in the

Muslim world, than in Christian world. Thus, we know that most of the Western Christian democracies are secular countries with secular legislation, while many Muslim countries have religious, sharia legislation, and some of them are even ruled by religion leaders (as Iran). Therefore, it is important not only what a certain religion tells about homosexuality, but also how much authority and influence this religion and church actually has in a particular society.

Thus, we are now approaching our expertise heuristics from the other angle. We will investigate which effect confidence in religious institutions has on homonegativity. We might expect that for religious believers, the statements and preaches of religious leaders against homosexuality will play an important role in shaping their homonegative attitudes. And the religion leaders often *do* speak against homosexuality. For example, in Catholicism Pope Benedict XVI preached against homosexuality in a strict disapproving way.[113]The Pope might have a certain authority to Catholic believers, though. Muslim religious leaders preach against homosexuality on a regular basis, identifying so-called "gay plight" with decadent Western influence[114]. For example, even in 2016 the Tunisian imam called to kill homosexuals by "stoning them to death".[115]More noticeably, Islam religious leaders preach against homosexuals even in the West. Thus, imam in Florida when he spoke in the mosque in 2016 (actually, just before the Orlando shooting) called the killing of homosexuals an "act of compassion".[116] Therefore, we could observe that religious and church leaders, Muslim imams in particular, speak against homosexuality quite frequently. If common religious believers are listening to them, it might contribute a great deal to their homonegativity.

There are a couple of questions in WVS and EVS about how much confidence a particular person feels in churches (religious institutions) and religious leaders. These questions reflect the authority which religious leaders and churches have for particular individuals. It could capture the expertise heuristics effect then. Thus, we could observe whether or not the religious leaders and their preaches could affect personal ATH in a negative way. There are two variables in our merged EVS-WVS dataset which measure this confidence – "Confidence: Churches" and "Confidence: Religious Leaders". The latter one turned out to be insignificant after correlation analysis, however. The first variable, "Confidence: Churches", in the contrary, is moderately correlated with our dependent variables and turned out to be significant during regression analysis. Therefore, we will use this variable as a second measure of expertise heuristics effect in our analysis (first one is the

[113] In his Christmas address to the Roman Curia in 2008, the Pope said that disrespecting the Catholic principle of "human being as man and woman" amounts to a "self-destruction of man himself, and hence the destruction of God's own work" (Benedict XVI, 2008).
[114] Swidler 1993
[115] Jihad Watch, Spencer 2016
[116] Imam says be compassionate to gays. Kill them 2016

frequency of religious attendance, as we remember). "Confidence: Churches" is an ordinal variable which is ranked from 1 ("A great deal") to 4 ("Not at all").

Our hypothesis there, again based on expertise heuristics effect, is that more confidence a particular person feels in churches, more homonegative this person is.

H7: More confidence in churches a particular person feels, more homonegative her attitudes are.

In addition, we decided to include the measure of personal religiosity in our analysis too, since it is indeed a very important predictor of ATH. However, we will not use variables "How important God is in your life?" and "Importance of religion in life" since both of them were used multiple times in other research. Instead of it, we decided to use another measure of religiosity – an ordinal variable "Religious Person" which is ranked from "1" (religious person) through "2" (not a religious person) to 3 ("a convinced atheist"). This variable is important from several points of view. Firstly, it could demonstrate the respondents' self-estimation of their religiosity, which might not necessarily concur with their actual level of religiosity but still matters. Secondly, here we could capture the possible impact of atheism on ATH. We already know that atheism considered a predictor of tolerance towards homosexuality, so we could test this claim by using this variable as well.

5.3. Control Variables

Religious variables are the explanatory variables of our main interest but we will use also set of control variables. Sociology theories tell that some personal differences, e.g., age, gender, income and education, may play a role in shaping attitudes about morality in general and homosexuality in particular (Kohlberg & Hersh, 1977). Thus, demographic characteristics, in particular *younger age* (Britton, 1990; Hayes, 1995; Herek & Gonzalez-Rivera, 2006; Michael et al., 1999; Kuntz et al., 2015; Wojcieszak & Price, 2010) and *female gender* (Berkman & Zinberg, 1997; Finlay & Walther, 2003; Hudson & Ricketts, 1980; Kelley, 2001, p. 18; Loftus, 2001; Poteat & Mereish, 2012; van den Akker et al., 2012) are associated with higher degree of acceptance of homosexuality. We have a lot of theoretical and empirical evidence which tell us that *higher education* (Hayes, 1995; Herek & Gonzalez-Rivera, 2006; Lambert, Ventura, Hall, & Cluse-Tolar, 2006; Loftus, 2001; van den Akker et al., 2012; Wojcieszak & Price, 2010), and also *higher income and social status* (Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1994; Six, 2009) related to

more accepting ATH as well. However, *marital status* (married people tend to be more homonegative) and *size of the family* (bigger families are more homonegative either) play a negative role in shaping ATH (Adamczyk & Pitt, 2009; Herek and Glunt 1993; Herek & Capitanio, 1995). Therefore, we will use all of these variables as controls. There was some research linked immigrants and immigration in EU with negative ATH (Röder, 2015; Simon 2008; Stulhofer and Rimac 2009; Gerhards 2010; Van den Akker, Van der Ploeg, and Scheepers 2012). However, since this research was done only for Europe and, moreover, it was stated that immigration plays negative role in shaping ATH only in EU (with flow of Muslim immigrants into EU in particular), and since we have the world data, it was decided not to use these variables.

Speaking of our controls, it would be useful to refer again to the abovementioned research by Pew Research Center. In their report, PRC also found correlation between age, gender and views on homosexuality.[117] For example, their findings show that in general women are more tolerant towards homosexuality than men, and that gender gap on acceptance of homosexuality is ranged from 10 to 17 percent.[118]Speaking about age and views on homosexuality, PRC report demonstrates that in general, young people (18-29) are tend to be more tolerant towards homosexuality, than middle-aged (30-49) and old people (50+). The hugest age gaps on acceptance of homosexuality could be seen in South Korea (71% of young people accepted homosexuality versus 16% of old people), Japan (83% vs. 39%) and Brazil (74% vs. 46%). In Europe and North America, the largest age gaps are observed in US (72% vs. 52%), Italy (86% vs. 67%) and Greece (66% vs. 40%). However, in other countries the age gap is relatively slight, and especially it is the issue when it comes to the nations which rejected homosexuality – the percentage of rejection is large and relatively same among all age groups. In Uganda and Malaysia, even inverse situation is observed when young people are less tolerant towards homosexuality than old people (only 3% of young people in Uganda accepted homosexuality versus 7% of old people, 7% vs. 11% in Malaysia). Thus, we should bear this in mind when we will test the impact of age in our own model.

As a measure of gender, we use binary variable "Sex" from our dataset where "1" = Male and "2" = Female. For age, we use an ordinal variable decoded into several categories with an interval of ten years for each age category. This division should let us capture the predicted difference in ATH between young and old people and trace all the impact age has on ATH. For marital status, we use a binary variable "Legally married to a partner" with "0" = No and "1" = Yes. To measure the size of the family, we use the question about how many children respondents had. This is an ordinal variable with ranked from 0 (no children) to "8 and more". The indicator of education we take from the question "Highest educational level attained". The answers are ranked

[117] Pew Research Center 2013
[118] Ibid

from "1" = Incomplete elementary education" to "8" = University with degree. To measure the income level, we considered use quantitative measure of income (e.g., weekly, monthly or annual household income) in euros, but we rejected the idea because this measure is incorrect in terms of comparability, since in different parts of the world the same amount of euros means actually a different amount of money, due to different values of national currencies. Thus, one hundred euros could mean much more money in India than in Finland, for instance. Therefore, an ordinal variable "Income level" which is ranked from "1" = Low, through "2" = Medium to "3" = High, was chosen. Since social class was considered important in shaping ATH by some researchers (Hout, Manza, and Brooks, 1993[119]; Andersen and Heath, 2003[120]) we decided to choose an ordinal variable "Socio-economic status of respondent" to check this hypothesis. Hout, Manza, and Brooks stated a particular importance of the difference between manual working class and nonmanual labor (managers, clerks and other nonmanual workers), and not only between upped, middle and lower social classes. Andersen and Fetner (2008[121]) stated that social class might be an important predictor of homonegativity, at least in Western democracies. Therefore, we will include this "Socio-economic status of respondent" variable into our analysis. This variable is structured in that way that will allow us to capture not only the difference in ATH between upper and lower social classes, but also between manual and nonmanual, skilled and unskillful labor force. Those in a summary are the most important individual level predictors of ATH suggested by the researchers. This "Socio-economic status of respondent" is an ordinal variable ranked as following: "1" for upper class, "2" for middle class of nonmanual workers, "3" for skilled manual workers and "4" for the unskilled ones. Our prediction is that upper class should be the most accepting of homosexuality and that manual unskilled working class – the least accepting.

5.4. Model

Formally, our model of measuring ATH looks like that:

$Y = \beta_0 + \beta_1$ (confidence to churches) $+ \beta_2$ (religious attendance) $+ \beta_3$ (religiosity) $+ \beta_4$ (gender) $+ \beta_5$ (age) $+ \beta_6$ (marital status) $+ \beta_7$ (number of children) $+ \beta_8$ (educational level) $+ \beta_9$ (income level) $+ \beta_{10}$ (socio-economic status) $+ \varepsilon$,

Where Y is a dependent variable (Y is different in three different models, it is "justifiable: homosexuality" for the first model, "neighbors: homosexuals" for the second one and "homosexual couples: adopt children" for the last one), and ε – an error term.

[119] Hout, Brooks and Manza 1993:259-77
[120] Andersen and Heath 2003: 301–327
[121] Andersen and Fetner 2008: 942–958

For each of three models, we will conduct a *multiple regression analysis*. We should note also that three different models will be run as three different types of regressions, according to the nature of each dependent variable. Variable for justification of homosexuality is an ordinal, but because it takes as much as ten different values, we could safely run *linear regression* for that model[122]. As for social distance towards homosexuals, which is measured by a binary variable "Neighbors: Homosexuals", we will run a *binary logistic regression*. At last, for the third model, we will use *ordinal logistic regression*, since the third dependent variable "Homosexual Couples: Adopt Children" is an ordinal variable which takes five different values from 1 to 5 (which is not a sufficient number to replace ordinal logistic regression with a linear one)[123].

5.5. Limitations

We are aware of the limitations of our data and models however. Thus, the data from EVS exist only until 2008, so it would be impossible to make comparisons between EVS and WVS datasets for the last, 6th WVS wave from 2010 to 2014. It would be equally impossible to use integrated longitudinal datasets until 2014 from both surveys, since data for EVS do not exist after 2008. Therefore, we will use integrated datasets from both EVS and WVS only from 1981 to 2008, and data from the last WVS wave of 2010 – 2014will be added later for cross-check. In addition, the variable "Neighbors: Homosexuals" was not observed in the first waves of both surveys, so for the second model we will have data only from 1990. Speaking of the third model, the question about child adoption by homosexual couples is asked only in EVS, so we will not be able to draw full comparisons between this last model based only on EVS data, and the previous two models. There are other limitations for data as well – for example, still not all countries are observed in these surveys (even if quite many of them, compared to Pew Research Center report, for instance), fewer number of countries participated in the EVS and WVS during the first waves that during the last ways, some data for each variable are missing, etc.

In addition, it is important to bear in mind, that EVS and WVS are surveys of public opinion, and that they could tell us only about what people think of homosexuality. It is important to take into consideration the fact that respondents' opinions presented in WVS and EVS might not always reflect personal true opinions. Thus, if homosexuality is illegal in a certain country and punished with a death penalty, respondents might be afraid to reveal their ATH if it is actually not negative. In addition, it is impossible in our data to determine whether the respondent herself is

[122] O'Connell 2006
[123] Ibid

homosexual or not which actually could affect her answer. However, even the data we have does not give us overall picture of homosexuality acceptance in particular society. Thus, we do not use here any official data about number of same-sex marriages (or registered partnerships) contracted in particular country/region, or any criminal statistics about number of crimes committed against LGBT people, etc. We also lack questions about gay friends and gay relatives and therefore we are unable to test familiarity hypothesis. What we can do however – to measure public opinion on homonegativity level, on social distance towards homosexuals and on societal attitudes towards child adoption by homosexual couples from the largest sample we were able to gather.

For now, it is worth to note also, that we are aware of the limitations which placed upon our analysis by the use of ordinal and logistic regressions. Because these variables are usually ranked relatively casually, we could not know, strongly speaking, to which extent dependent variable would change when independent variable changes by one, as we could in standard linear regression models. Therefore, our regression models would be informative only about the signs of the regression coefficients, and not about their exact values. Thus, we could be aware only of general direction of causality, but not of the strength of the effect of independent variable on dependent one which is determined by the value of regression coefficient. However, it is the only possible way to deal with ordinal and binary dependent variables which we have in our data. Personal attitudes are hard to measure quantitatively, though.

6. Results and Discussion

6.1. Cross-Country Descriptive Analysis

First of all, we made a cross-country descriptive statistics analysis for each of our three variables of interest. In other words, we computed descriptive statistics (e.g., number of observations, means and standard deviations) for each of our dependent variables, split it by countries and, thus, compared countries by its means. The results are presented in tables 1-3 and figures 1-3. It is worth to notice that for the first two variables, "Justifiable: Homosexuality" and "Neighbors: Homosexuals", we have data from both WVS and EVS datasets (to be precise, from 111 countries for the first variable and for some reason only from 109 for the second one), whereas for the last variable, "Homosexual Couples: Adopt Children) we have data only from 46 European countries (including Turkey and Northern Cyprus). We had done a descending and ascending sorting of all data presented in the tables by its mean values in that way which allows to represent the most tolerant attitudes in the beginning and the most homonegative ones – in the end. Thus, for the first variable we started from Andorra with its score of 8.24 representing the most accepting

attitude, and finished with Egypt with its score of 1.01 representing the most homonegative attitude. In the end of each table we put the medium score (average mean for this variable) and total number of observations for all countries. For the graphs, the data was sorted in the same way to demonstrate clearer how ATH are divided by countries.

In addition, it is worth to note that here we computed the country means from all available waves of WVS from 1981 to 2014 and EVS from 1981 to 2008. Thus, if, for example, for a certain country we have values from each wave, the mean value for all of these waves was computed and presented here. If, however, for a certain country the data only from one wave was available, this only score is presented here. To cross-check all of these cases, we also computed country means split by the time periods (e.g., separately for each wave), to observe how ATH were changed in a certain country through time. These result tables are not included in the main analysis, however, because of the lack of space, but they are available in the Appendix. It is again worth to note, that for the last variable, "Homosexual Couples: Adopt Children", the data only from the last wave (2008) is available since this question was not asked in the previous EVS waves. For the most of the countries, however, we have data from different waves, and mean value was computed, as was stated before. For some countries, however, data came only from the one wave, the one year. For these countries, we put the year from which data came from, in brackets in our tables. This notion is important because if, say, we have data from a certain country only for 2001 or even 1996, we could not be sure how ATH were changed in this country during last years, and could not make valid comparisons with countries which have data for 2008 or even 2014. Let us start analyze our variables of interest one by one, however, with all limited data we have. For details with data split by years, all who are interested are welcome to see Appendix.

For the variable, "Justifiable: Homosexuality", Andorra turned out to be the most accepting country with score of 8.24 (when the maximum score is 10) and the least accepting country is Egypt with score of 1.01 (when the minimum score is 1). However, the data from Andorra came from 2005 and from Egypt – from 2001, so we might expect that something might have changed in these countries by now. Although with the data we have, Andorra and Egypt are leader and anti-leader in our score. However, one disturbing issue could be noticed from the data. Andorra is followed by Netherlands with score of 7.33 and Sweden with score of 6.99, and then Luxembourg with score of 6.24 already. The maximum score for homosexuality acceptance is 10 ("Always justifiable"), and our leaders in terms of homosexuality acceptance are split somewhat between 6 and 8 on their score. Thus, *no country* is ready to accept homosexuality completely, even among the most tolerant ones. In the contrary, quite a large list of countries is scored between 1 and 2, very close to the minimum score of 1 ("Never justifiable"). Thus, many countries in the world are still ready to reject homosexuality completely, considering it to be "never justifiable". Total score is 3.34 (with number

of observations equal to 456 266 individuals), which is far closer to the lowest score 1 ("Never Justifiable") than to the highest score 10 ("Always Justifiable"). That signifies that homosexuality is still far from being fully accepted in the contemporary world.

Speaking of our results in general, we found an empirical support for many theoretical predictions from literature review already in this simplest descriptive analysis. Thus, Western democracies are ranked highest in terms of homosexuality acceptance and the Muslim ones – lowest. In addition, Western Europe turned out to be more tolerant than Eastern Europe, as was also predicted, and Latin America is scored relatively high too (with Uruguay as leader of homosexuality acceptance with its score of 5.31). There are some slight exceptions, however. Thus, Israel is ranked surprisingly high even for the data from 2001 – of 4.89, which is better score than for Canada (4.79) and Great Britain (4.68). In addition, some Asian non-Muslim countries – Philippines, Japan and Hong Kong – are ranked higher than Italy, Ireland and United States, for instance. Communist and post-Communist countries along with India are ranked poorly, as was predicted, though somewhat better than most of the Muslim ones. Speaking of the latter, we have some notable exceptions, however. Thus, Singapore, Lebanon and Mali are scored surprisingly high and better than some Eastern European countries (such as Poland, Hungary, Estonia and Lithuania). Singapore with its score of 3.08 and Lebanon with score of 3.00 are the most accepting Muslim countries in the world, at least according to our data. Lithuania with its score of 1.79 (far below even some Muslim countries) is the most homonegative country in Europe and Georgia with its score of 1.30 is the most homonegative Christian country in the world.

These results are very interesting and important indeed. They confirmed many theoretical predictions but also highlighted some notable exceptions. Thus, Andorra as the most accepting country went unnoticed in all of the previous researches – probably, because of the small size of this country which kept it apart from the interest of the most researchers. As for Lebanon and Mali, we could speculate about the reasons behind their high score in terms of homosexuality acceptance. Thus, some researchers consider Lebanon one of the most progressive and liberal Arab countries.[124]However, it is not the purpose of this analysis to give ad hoc explanations of the results. Here, we just draw a general picture (which could be seen clearer in the graphs than in numbers) and highlighted some peculiar cases and exceptions. We will deal with them in the main parts of our analysis, when we will run regression models and apply our theories to explain ATH and its change over time. For now, let us move to the analysis of the second variable of interest.

[124] Diamond 2008

Table 1. Justifiable: homosexuality

Country/region	Mean	N	Std. Deviati	Country/region	Mean	N	Std. Deviatio
Andorra (2005)	8,24	3257	1,751	Zambia (2007)	2,62	4173	1,826
Netherlands	7,33	2316	1,787	Estonia	2,57	2676	3,470
Sweden	6,99	996	2,736	South Korea	2,52	2501	2,229
Luxembourg	6,24	2886	1,205	India	2,47	1320	3,040
Denmark	6,11	5693	3,318	Belarus	2,42	2650	2,840
Iceland	6,10	5976	3,394	Latvia	2,29	10463	3,032
Switzerland	5,91	4303	3,372	Northern Cyprus (2008)	2,23	4194	2,006
Norway	5,65	1199	1,536	Venezuela	2,20	2706	1,763
Germany	5,41	1457	,574	Kazakhstan (2011)	2,18	1109	1,022
Uruguay	5,31	4437	1,547	Ukraine	2,17	7434	3,209
New Zealand	5,29	6980	3,229	Russian Federation	2,11	2615	3,351
Australia	5,25	2672	1,830	Bahrain (2014)	2,10	6752	1,578
Finland	5,10	4612	3,125	Romania	2,04	5346	3,680
Czech Republic	5,09	4929	2,683	Moldova	2,03	3200	,827
France	4,98	6618	2,336	El Salvador (1999)	2,03	3753	2,628
Spain	4,93	6708	3,296	Bosnia (1998)	2,03	3578	2,807
Israel (2001)	4,89	5454	3,045	Serbia	2,01	7180	2,631
Canada	4,79	6670	1,611	Macedonia	1,91	3484	2,638
Great Britain	4,68	3135	2,855	Trinidad and Tobago	1,87	1841	2,770
Serbia and Montenegro (2005)	4,66	10444	2,828	Kyrgyzstan	1,84	1057	1,327
Austria	4,64	3618	2,938	Bosnia Herzegovina	1,84	7710	2,144
Belgium	4,49	2972	2,834	Albania	1,84	11235	2,153
Slovakia	4,46	482	2,243	Libya (2014)	1,82	3019	1,144
Slovenia	4,34	7563	3,471	Lithuania	1,79	1459	1,120
Greece	4,23	4602	3,629	Viet Nam	1,77	3766	2,035
Argentina	4,22	402	2,972	Burkina Faso (2007)	1,76	3474	2,403
Philippines	4,02	1197	2,392	Iraq (2012)	1,73	5011	3,175
Japan	4,02	1217	2,495	Algeria	1,70	2239	1,667
Hong Kong	3,88	1488	1,412	Nigeria	1,69	6139	3,572
United States	3,88	5621	2,467	Montenegro	1,65	16062	2,695
Italy	3,84	5523	3,527	Uzbekistan (2011)	1,63	2492	1,447
Ireland	3,80	6076	3,266	China	1,62	13155	3,378
Chile	3,77	6064	1,012	Turkey	1,61	6936	3,477
Brazil	3,68	947	1,308	Ghana	1,58	4796	3,474
Taiwan	3,66	14230	3,383	Zimbabwe	1,53	2710	2,084

Northern Ireland	3,49	3044	1,579	Armenia	1,53	1949	1,820
Mexico	3,36	2527	3,089	Rwanda	1,52	1087	,915
Dominican Rep. (1996)	3,26	993	2,645	Palestine (2013)	1,51	7393	1,582
Cyprus	3,21	2233	2,755	Ethiopia (2007)	1,51	1000	1,140
Peru	3,19	6271	2,774	Yemen (2014)	1,50	7222	2,074
Guatemala (2004)	3,14	3247	3,561	Iran	1,39	3383	2,034
Portugal	3,10	8672	2,642	Saudi Arabia (2003)	1,38	3000	,146
Malta	3,09	2974	1,141	Azerbaijan	1,33	7005	3,216
Puerto Rico	3,07	5066	1,415	Qatar (2010)	1,33	1160	,803
Singapore	3,07	1152	1,500	Georgia	1,30	9950	3,180
Colombia	3,06	3909	3,080	Kosovo (2008)	1,29	1422	1,963
Croatia	3,05	1153	3,689	Uganda (2001)	1,28	2851	3,394
South Africa	3,04	6063	3,144	Indonesia	1,28	1484	1,485
Lebanon (2013)	3,00	7082	2,986	Morocco (2011)	1,26	2364	2,177
Thailand	2,98	1500	2,056	Pakistan	1,25	654	1,625
Ecuador (2013)	2,89	3582	,687	Tanzania (2001)	1,15	1096	3,508
Bulgaria	2,89	6976	2,289	Tunisia (2013)	1,14	1450	2,548
Mali (2007)	2,87	2527	1,811	Jordan	1,12	1960	2,948
Poland	2,70	1200	2,475	Bangladesh (2002)	1,05	779	1,900
Malaysia	2,68	4380	2,283	Egypt (2001)	1,01	1577	1,257
Hungary	2,68	1950	2,071	Total	3,34	456266	3,113

The second variable, "Neighbors: Homosexuals" is a measure of social distance from homosexuals. This is a binary variable with 1 = "Mind" (to have homosexuals as neighbors) and 0 = "Don't mind". The average score is 0.47 (with number of observations equal to 441 866 individuals) which is far better than the mean score for previous variable. This result highlights that, even if people judge homosexuality strictly, they would not mind as much to interact with homosexuals in their social environment. It might mean, among other things, that people, even if they judge homosexual activity, might to some extent admit gay people's right to have it, and therefore do not mind interaction with them. However, we again will avoid any speculations and just interpret the results that we got.

The most accepting country with regard to second variable is again Andorra with its score of 0.05 and the least accepting is again Egypt with score of 1.00 (maximum level of intolerance in this case). However, the scores themselves are somewhat changed. The highest scores of the leaders are now much closer to the maximum level of acceptance (say, compare 0.05 to 0) than it was with

previous variable, though the lowest scores hit the minimum level of acceptance again. However, it again seems that with regard to the social interaction with homosexuals, people tend to be more accepting than when it comes to justifiability of homosexuality. We should bear in mind that these results might demonstrate greater levels of tolerance due to the binary nature of the variable, however. In this case, respondents were left only with two possible options of answers – "Mind" or "Not", whereas in the previous case they had much more options to define their preferences. Thus, if a certain person is not completely ok with homosexuals as neighbors, she still might choose "Don't mind" because she is not against it. In addition, we should remember, that answer "Don't mind" does not mean that respondents really *want* to have homosexuals as neighbors, it means that they just do not mind it. Still, the difference of values between two variables is notable.

The leaders in terms of homosexuality acceptance are the same – Andorra, Sweden, Netherlands, Denmark, Iceland, Norway and Switzerland (all Scandinavian countries with slight exception of Finland, plus Andorra, Netherlands and Switzerland). However, some things had changed. Thus, Luxembourg, which was ranked 4th in previous table, now fell to 14th position, but France and Spain, which were less acceptant, now are ranked better. That does not necessarily, however, that French and Spanish respondents judge homosexuality stricter than they are willing to interact with homosexuals. We should remember that data for the data for the second variable exists only from the second wave, from 1990, whereas the data for the first variable exists from 1981. That could make the scores for the first variable drag behind the scores of the second one, since the very early data must have been more homonegative (because ATH changed to the better over time, and they were worse in 1980s than in 1990s even in Europe). For details, see the Appendix.

However, some notable exceptions we could not explain just by binary nature of the second variable or the more recent data we have for it. Thus, a Muslim kingdom surprisingly jumped to the 10th place in our score, right between France and Spain, leaving many European countries behind. In the table 1 Bahrain was ranked very poorly with score of 2.10. Now Bahrain became one of ten leaders in terms of homosexuality acceptance. The same change we could observe with some other Muslim countries which were ranked very poorly in terms of justifiability of homosexuality, but received far better score in terms of social interaction with homosexuals – Pakistan (0.22), Bangladesh (0.45) and Iran (0.48). These are indeed very interesting results. Thus, we know that two our dependent variables are correlated not perfectly, and that respondents' perceptions in terms of justifiability of homosexuality and social acceptance of homosexuals might be somewhat different. Still, the difference for abovementioned four Muslim countries is too big. These countries merely jumped from the one end of the table to another. How could it be possible that population of these countries consider homosexuality to be "never justifiable" and still almost do not mind at all to interact with homosexuals? Remember, score for Bahrain now is far better than for many

Western countries like Finland, for instance. The reason behind this inconsistency could be an important question to investigate for the future research.

There are some inverse cases when countries which demonstrate greater acceptance in terms of justifiability, turned out to be less tolerant in terms of social distance. Thus, Japan moved to the position of the less tolerant country with score of 0.69, but it could be because data for Japan was gathered only for 1990 for this variable. It is very likely that if we had data for other waves of WVS, the results would be somewhat different. Other example is Turkey, which was scored not so poorly in the table 1 (though not so good either), now moved to the position in the very low end of the table 2, next to Egypt and Azerbaijan, the intolerance leaders. However, these differences are not so big and significant, as for the abovementioned four Muslim countries which drastically changed their attitudes in the second question.

However, in general results for the second variable are consistent with the results for the first one. The leaders are Western countries, then Latin America, then Eastern European and Asian non-Muslim countries, and (post-) Communist and Muslim countries drag behind as the least tolerant.

Table 2. Neighbors: Homosexuals

Country/region	Mean	N	Std. Deviation	Country/region	Mean	N	Std. Deviation
Andorra (2005)	,05	3448	,466	Taiwan	,55	4518	,439
Sweden	,08	2482	,459	Latvia	,55	2794	,390
Netherlands	,08	1003	,220	India	,56	2500	,479
Denmark	,08	3004	,277	Poland	,56	1534	,473
Iceland	,09	5393	,418	Trinidad and Tobago	,56	2863	,462
Norway	,12	4946	,402	Lebanon (2013)	,59	8990	,484
Switzerland	,12	4465	,463	Macedonia	,59	4510	,424
Guatemala (2004)	,16	1200	,382	Serbia	,60	2774	,459
France	,17	3025	,497	Romania	,61	2451	,322
Bahrain (2014)	,18	4587	,445	Bosnia (1998)	,61	6505	,272
Spain	,18	6205	,383	South Korea	,62	2996	,389
Belgium	,18	2663	,483	Kosovo (2008)	,62	6778	,415
New Zealand	,19	4768	,409	Indonesia	,62	4472	,321
Luxembourg	,19	5513	,499	Venezuela	,62	3200	,412
Uruguay	,19	7111	,469	China	,63	5422	,499
Canada	,20	5766	,399	Ukraine	,63	3600	,449
Australia	,20	5700	,490	Bosnia Herzegovina	,63	6663	,497
Germany	,20	7791	,484	Malaysia	,64	3696	,477
Brazil	,21	3245	,498	Uzbekistan	,65	1884	,451
Great Britain	,21	7533	,464	Palestine (2013)	,65	1060	,370
Finland	,22	3615	,500	Mali (2007)	,66	8144	,488
Pakistan	,22	3017	,496	Russian Federation	,67	12486	,470

Argentina	,23	489	,474	Belarus	,67	3034	,430
Ireland	,27	7834	,471	Albania	,68	3902	,490
United States	,28	3313	,275	Japan (1990)	,69	3482	,488
Philippines	,28	417	,500	Serbia and Montenegro (2005)	,69	5450	,500
Puerto Rico	,28	1202	,487	Yemen (2014)	,69	2495	,470
Italy	,29	1254	,412	Tunisia (2013)	,69	6476	,493
Greece	,29	1500	,383	Algeria	,70	12372	,495
Malta	,31	6054	,498	Montenegro	,70	2502	,396
Austria	,31	4715	,411	Kyrgyzstan	,72	11617	,382
Colombia	,31	5098	,376	Armenia	,73	6467	,271
Viet Nam	,33	6184	,359	Zambia	,73	3707	,331
Czech Republic	,33	1000	,476	Kazakhstan (2011)	,73	2721	,481
Northern Cyprus (2008)	,34	13267	,403	Lithuania	,74	2001	,496
Northern Ireland	,35	3086	,409	Tanzania (2001)	,74	1205	,463
Portugal	,35	2634	,455	Libya (2014)	,74	12842	,322
Thailand	,36	1000	,365	Uganda (2001)	,75	1002	,433
Mexico	,38	2252	,495	Rwanda	,76	7964	,484
Ecuador (2013)	,39	4157	,499	Moldova	,77	3540	,492
Singapore	,39	2425	,292	Nigeria	,78	3000	,063
Chile	,40	10124	,497	El Salvador (1999)	,78	6161	,410
Slovenia	,42	3009	,485	Ghana	,79	1171	,438
Hong Kong	,43	5197	,500	Iraq (2012)	,80	8053	,447
South Africa	,43	1200	,398	Burkina Faso (2007)	,81	1534	,396
Cyprus	,44	2831	,444	Zimbabwe	,81	3000	,391
Bangladesh	,45	6454	,452	Ethiopia (2007)	,82	1500	,477
Hungary	,47	1011	,465	Qatar (2010)	,84	2400	,484
Peru	,47	1500	,442	Georgia	,85	1000	,464
Slovakia	,48	3623	,350	Jordan	,86	1220	,464
Iran	,48	4851	,486	Morocco	,88	1500	,443
Croatia	,48	2543	,447	Turkey	,88	1752	,476
Dominican Rep. (1996)	,49	1200	,493	Azerbaijan	,92	800	,488
Bulgaria	,53	4586	,498	Egypt (2001)	1,00	1535	,485
Estonia	,55	2131	,436	Total	,47	441866	,499

For the last variable, “Homosexual Couples: Adopt Children”, we have data only from the last EVS wave, as was mentioned above. Thus, we will have only European countries (with Turkey and Northern Cyprus included) and only 2008-2009 years. This variable is an ordinal one which is ranked from 1 = “Agree Strongly” (with child adoption by homosexuals) to 5 = “Disagree Strongly”). Results are presented in Table 3 and Figure 3.

The mean score is 3.68, which is again closer to the non-accepting polar of the score, with 62 177 observations. Number of observations is much smaller because the data came only from

Europe and only from the last EVS wave. The most accepting country here is Iceland with score of 2.10 and the least accepting one is Georgia with score of 4.55. Taking into account that Georgia was the most homonegative Christian country in the world in Table 1, and Iceland was ranked as one of the most tolerant countries in Tables 1 and 2, these results are not surprising. Andorra is not included in this dataset and that is why probably the leader of acceptance now has changed. In general, results for this table are consistent with previous ones and confirmed theoretical predictions. The Western Europe countries in general and Scandinavian ones in particular (now, Finland is in the row with other Scandinavian ones, unlike in previous cases), Eastern European countries and Russia drag behind.

Some notions could be made, however. Thus, Spain is ranked surprisingly high in this table – on the 4th place, above Denmark, Norway and Finland. Taking into account that it is a Catholic country, and Catholics are tend to be more homonegative than Protestants, this result is rather surprising. In addition, if we would take only data for the last wave for previous two variables, Spain would be ranked much higher there as well (see Appendix). Having the highest score in terms of homosexuality acceptance out of all Catholic countries and far above them, Spain is indeed a very interesting case to investigate with this regard, for the future research. Other interesting case there is Turkey. This only Muslim country in the table is ranked surprisingly high with its score of 3.51, just below Switzerland, and above all the Eastern European countries and Russia. Taking into consideration that Turkey was ranked very poorly in terms of justifiability of homosexuality and even poorer in terms of social distance from homosexuals, its relatively tolerant position with regard to child adoption by homosexuals is somewhat puzzling. Thus, in general we considered this "child adoption" variable to be a measure of greatest acceptance of homosexuality, since, as was noted above, even for people who accepted homosexual behavior, the question of child adoption by homosexuals is still highly controversial. Therefore, we predicted that results for this variable would be more negative, than for the previous ones. In general, this prediction was confirmed. Thus, even if for this analysis were taken only European, the most progressive in terms of homosexuality acceptance countries, and data came only from 2008-2009, the very recent years, the results are still far from perfect. The best score for Iceland is still higher than 2, and the majority of countries are ranked between 3 and 5, which means between strong disagreement, disagreement and lack of a particular opinion. No country strongly agrees with the idea of child adoption by homosexuals, and only one score for Iceland is closer to the agreement than to the lack of any position. With this regard, results for Turkey seem even more peculiar.

Table 3. Homosexual couples - adopt children

Country/region	Mean	N	Std. Deviation	Country/region	Mean	N	Std. Deviation
Iceland	2,10	1299	1,130	Romania	3,86	1336	,927
Netherlands	2,59	1436	1,357	Kosovo	3,86	1535	1,475
Sweden	2,79	1382	1,026	Estonia	3,89	1439	,800
Spain	2,86	1498	1,482	Belarus	3,92	1386	1,207
Denmark	2,92	1485	1,036	Albania	3,94	1460	,963
Belgium	3,03	1346	1,057	Northern Cyprus	3,94	1524	1,166
Norway	3,09	1363	1,221	Italy	4,00	1082	1,553
Finland	3,11	1479	,981	Moldova	4,02	1466	,989
Luxembourg	3,11	945	1,050	Bosnia Herzegovina	4,04	1480	1,154
Great Britain	3,20	456	1,111	Macedonia	4,05	1400	1,204
Czech Republic	3,24	1726	1,203	Croatia	4,07	1262	1,188
France	3,28	1453	1,414	Latvia	4,08	1469	,993
Germany	3,30	1456	1,088	Montenegro	4,09	1362	1,059
Ireland	3,32	1052	1,422	Armenia	4,10	1320	1,113
Northern Ireland	3,33	1478	1,459	Malta	4,11	1449	1,422
Austria	3,40	1373	,818	Lithuania	4,12	1063	1,431
Switzerland	3,42	1950	1,342	Ukraine	4,16	1208	1,339
Turkey	3,51	1462	,919	Poland	4,20	2078	1,341
Bulgaria	3,73	1486	1,213	Slovakia	4,23	1294	1,166
Slovenia	3,79	788	,964	Serbia	4,24	1428	1,120
Russian Federation	3,81	894	1,235	Greece	4,33	1464	1,214
Portugal	3,82	1457	1,042	Cyprus	4,35	456	1,232
Hungary	3,82	1405	1,022	Georgia	4,55	1547	1,062
				Total	3,68	62177	1,288

We conducted a simple cross-country descriptive statistics analysis which revealed certain trends in ATH in different countries. In general, our expectations and predictions from the literature review were confirmed. Some notable exceptions and peculiar cases were highlighted, however. They will be investigated further during regression analysis and, if the mystery would not be resolved, they will remain questions to explore in the future researches.

Figures 1 - 3 which repeat the information in Tables 1 - 3 are presented in the Appendix.

6.2. Multiple Regression Analysis

In this section, we will run regression model only for the first dependent variable – "Justifiable: Homosexuality" (let us call it from this point "*Homonegativity Index*"). Then, the results for two other dependent variables for cross-check will be presented too. Let us start from

correlation analysis between our homonegativity index and main independent variables of interest. These variables are: "Confidence: Churches" (we will call it "Confidence in Churches"), "How often do you attend religious services?" (we will call it "Religious Attendance") and "Religious Person" (we will call it "Religiosity Level"). Below in the Table 4 correlations between homonegativity index and key explanatory variables are presented.

Table 4. Correlations between major variables of interest*

Variables	Homonegativity Index	Confidence to Churches	Religious Attendance	Religiosity Level
Homonegativity Index	1			
Confidence to Churches	0.261	1		
Religious Attendance	0.233	0.479	1	
Religiosity Level	0.204	0.456	0.461	1

*Correlation is significant at the 0.01 level (2-tailed).

From Table 4, we could see that homonegativity index is moderately correlated with all of the key explanatory variables. Herewith, the correlation between homonegativity index and confidence to churches is the strongest (r = 0.261), following by religious attendance (r = 0.233), and only then by religiosity level (r = 0.204). Thus, our theoretical predictions from social psychology based on expertise heuristics that religious attendance and confidence in religious institutions might play more important role as predictors of homonegativity than general religiosity level, received first confirmation already from correlation analysis.

Not surprisingly, our independent variables are highly correlated between each other. It is only natural to observe such a correlation since all of these variables are measures of personal religiosity with regard to its different aspects. However, because of these high correlation levels, we decided to include religious attendance and confidence in churches variables, which demonstrate the largest correlation between each other (r = 0.479), separately in our model. Thus, we will observe the effects of attendance and confidence variable in two separate models. The religiosity variable will be included in both of these models, however, despite its high correlation level with both of these variables as well. We need to observe the effect of both religiosity and confidence to churches, and religiosity and religious attendance, though. Otherwise our analysis loses its sense.

Before proceed to the regression analysis, let us present a brief summary of all our variables of interest, including controls, in table 5.

Table 5. Variable Information

Variable	Min.	Max.	Information
Homonegativity Index	1	10	1 = "Never justifiable", 10 = "Always justifiable"
Confidence in Churches	1	4	1 = "A great deal", 4 = "None at all"
Religious Attendance	1	8	1 = "More than once a week", 8 = "Never practically never"
Religiosity Level	1	3	1 = "A religious person", 2 = "Not a religious person", 3 = "A convinced atheist"
Sex	1	2	1 = "Male", 2 = "Female"
Age	1	6	1 = "15 – 24 years", 6 = "65 and more years"
Marital Status	0	1	0 = "Not legally married to a partner", 1 = "Legally married to a partner"
Number of Children	0	8	0 = "No children", 8 = "8 and more children"
Educational Level	1	8	1 = "No completed education", 8 = "University degree"
Socio-economic Status	1	4	1 = "Upper class", 4 = "Unskilled manual workers"
Income Level	1	3	1 = "Low", 3 = "High"

Finally, let us move to individual level regression analysis. We will run four multiple linear regression models for this variable. As was argued in theoretical section, even if our dependent variable is ordinal, it is possible to use linear regression since the number of its categories is far larger than five (ten in our case). First, we will observe the "pure" effects of our religious variables, religious attendance and confidence to churches, separately along with religiosity level variable, and then we will add control variables. Finally, we will compare results of all models and conclude. Results for the homonegativity index variable are presented in Table 6. Results for other two dependent variables could be seen in Appendix.

Table 6. Individual-level predictors of homonegativity in the world*

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
(Intercept)	1,089	,0131	2,585	,2702	1,453	,0127	2,862	,2600

Confidence to Churches	**,660**	**,0053**	**,532**	**,0358**				
Religiosity Level	**,609**	**,0102**	**,486**	**,0630**	**,689**	**,0103**	**,364**	**,0636**
Religious Attendance					**,219**	**,0021**	**,247**	**,0136**
Sex			**,700**	**,0608**			**,648**	**,0601**
Age			**-,083**	**,0230**			**-,086**	**,0228**
Marital Status			**-,903**	**,1034**			**-,840**	**,1019**
Number of Children			**-,166**	**,0223**			**-,167**	**,0222**
Educational Level			**,199**	**,0174**			**,210**	**,0172**
Socio-Economic Class			**-,425**	**,0395**			**-,422**	**,0388**
Income Level			**,161**	**,0447**			**,153**	**,0443**

*All coefficients are significant with $p < 0.01$.

Our regression results are somewhat interesting. In the Model 1, we discovered that confidence in churches contributes to homonegativity more than religiosity level. This effect does not disappear after introducing all control variables in our model. Confidence in churches coefficient became a bit smaller after including controls in the Model 2, but it is still big enough and significant, and its impact on our dependent variable is still greater than of general religiosity level. Thus, we could claim that confidence in churches and religious institutions contributes to homonegativity more than religiosity in general, and that expertise heuristics effects matters. Thus, our Hypothesis 5 is supported by empirical results.

Speaking of control variables, all our predictions are confirmed either, though to different extent. Thus, female gender, younger age, single marital status, fewer number of children, higher educational level, upper social class and higher income level contribute to more accepting attitudes towards homosexuality. However, their impact is somewhat different. Thus, gender, marital status and socio-economic class have greater impact on homonegativity than all other control variables. For gender and marital status, the effect is larger than even for our religious variables. Age has the least impact on our dependent variable. It is worth to note that we tried to use first different variable for age which was decoded into three categories (just young, middle-aged and old) instead of six categories, but this variable turned out to be insignificant in our model. When we replaced it by new age variable with six categories, its effect was significant but small. Educational and income levels also had lesser impact than it was expected. The effect of socio-economic class is large enough, though. Let us say some more about this variable. Thus, socio-economic status in our analysis represents not only social class (upper, middle and low), but also type of labor force (manual and non-manual). It was argued by some abovementioned researchers that lower social class and manual type of labor contribute to more homonegativity level. This argument stemmed from Inglehart's ideas about role of economic development and survival values (e.g., people with lower income and

manual workers tend to express more survival than self-expression values, thus contributing to greater homonegativity). Both of these propositions were confirmed in our model. Thus, manual unskilled workers turned out to be the most homonegative whereas the upper class and non-manual workers – the least ones.

When we performed analysis for religiosity level and religious attendance, the results were somewhat different. In Model 3, both variables turned out to be significant but the impact of religiosity level thrice greater than of religious attendance, unlike with confidence to churches variable. Thus, our Hypothesis 4 also received support though only partially: religious attendance *does* contribute to homonegativity, but to lesser extent than general religiosity.

After introducing controls in Model 4, both our religious variables remained significant but their impact had changed however. Thus, the effect of religiosity level dropped almost twice (from 0.689 to 0.364), though the effect of religious attendance became somewhat a bit stronger, in the contrary (regression coefficient has increased from 0.219 to 0.247). However, combined effect of religiosity and religious attendance on homonegativity level is smaller than of religiosity and confidence to churches. Thus, we could conclude that confidence in churches has the largest impact on our dependent variable among all religious variables, and contributes the most to homonegativity. Thus, it is not enough to be religious to express homonegative views. You have to trust what priests and imams say about homosexuals to have the most homonegative attitudes.

Speaking of control variables in Model 4, their effect is similar to the one in Model 2. Almost all coefficients became a bit smaller, but in general their signs and values did not change.

From our individual-level regression analysis we could conclude that all our theoretical predictions were supported. Both our hypotheses were also confirmed though Hypothesis 4 (H4: More frequently a particular person attends religious services, more homonegative this person is) received only partial confirmation: religious attendance does contribute to homonegativity but to lesser extent than religiosity level. To cross-check these results for other two dependent variables, see the Appendix.

Table 7. Individual level predictors of social distance towards homosexuals*

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
(Intercept)	-,667	,0093	-,658	,1973	-,565	,1941	-,491**	,0086
Confidence to Churches	,241	,0036	,258	,0264				
Religiosity Level	,207	,0065	,359	,0481	,071	,0014	,248	,0492
Religious Attendance					,237	,0066	,138	,0103
Sex			,369	,0444			,342	,0442

Age			,089	,0172			,095	,0173
Marital Status			-,484	,0820			-,437	,0814
Number of Children			-,163	,0172			-,166	,0171
Educational Level			,095	,0127			,105	,0128
Socio-Economic Class			-,210	,0285			-,211	,0285
Income Level			,153	,0325			,143	,0324

*All coefficients except (**) are significant with $p < 0.01$.

** Significant with $p < 0.05$.

Table 8. Individual Level Predictors of Attitudes towards Child Adoption by Homosexual Couples*

		Model 1		Model 2		Model 3		Model 4	
		B	SE	B	SE	B	SE	B	SE
Threshold	**= "1"**	-3,703	,0281	-3,901	,0582	-3,654	,0266	-3,910	,0575
	= "2"	-2,350	,0244	-2,553	,0556	-2,300	,0228	-2,560	,0549
	= "3"	-1,644	,0232	-1,841	,0550	-1,593	,0217	-1,850	,0543
	= "4"	-,445	,0221	-,628	,0545	-,394	,0207	-,637	,0538
Confidence to Churches		-,234	,0092	-,228	,0102				
Religiosity Level		-,412	,0161	-,420	,0178	-,381	,0159	-,389	,0176
Religious Attendance						-,107	,0036	-,105	,0041
Sex				-,314	,0171	,0053		-,316	,0170
Age				,128	,0053	,0048		,125	,0053
Educational Level				-,043	,0048	,0112		-,043	,0047
Income Level				,025**	,0112			,008***	,0111

*All coefficients except (**) and (***) are significant with $p < 0.01$.

** Significant with $p < 0.05$.

*** Insignificant with $p = 0.452$.

6.3. The role of religious denomination in shaping ATH

It was suggested by previous research in literature review that religious denomination matters when we speak of ATH, not only personal religiosity. In particular, the results of previous research suggest that Muslim religious denomination is the most homonegative one, while Buddhist, Hindu and Protestant denominations are somewhat more tolerant towards homosexuality

(Adamczyk and Pitt (2009), Jäckle and Wenzelburger (2015)). There were also some discrepancies in their results. Thus, Adamczyk and Pitt (2009) claimed that only Muslim religious denomination has a stronger negative effect on ATH, while the differences between other denominations with regard to ATH are not so significant. In the contrary, Jäckle and Wenzelburger (2015) discovered that Muslim religious denomination is the most homonegative one indeed, but the difference between other religious denominations matters as well. Thus, their findings demonstrated that Protestants are more tolerant than Catholics and Orthodox Christians, but less tolerant than Buddhists and Hindu.

We did not include religious denomination yet in our analysis but were focused more on personal religiosity and its interaction with confidence in churches and religious attendance. Now it is time to include the religious denomination variable in our analysis. The original variable "Religious Denomination" in World Values Survey is an ordinal variable which contains more than 90 different categories of religious denominations. Therefore, it was decided to recode this variable to make it more suitable for our analysis. Thus, we excluded from our analysis the denominations which had too few followers (to be precise, we excluded categories for which the percentage of respondents was less than 1% from all respondents for this question). It was also possible to merge some denominations which were separated into different categories, into one (for example, we merged Sunni and Shia denominations with more general, Muslim denomination). Eventually, we created a new variable which contains only eight major religious denominations: Muslim, Protestant, Catholic, Orthodox, Hindu, Judaism, Independent Christian and Buddhism. Six of those denominations were already used in Jäckle and Wenzelburger paper but we added Judaism and Independent Christian Churches into our analysis (by independent churches we mean free, independent churches which officially do not belong to any major Christian denomination, for example Independent African Church). Independent churches may as well borrow many features from traditional Christian denominations but they are not defined by these denominations. Thus, so-called Free Churches are separated from established, "official" churches (for example, Free Church of England is separated from the established Church of England). Other independent churches, like African Independent Church, include elements of African traditional pagan beliefs and rites into their Christian modes of worship. It was considered a good idea to observe whether there is any difference in ATH between conventional and independent churches therefore.

Based on this recoded Religious Denomination variable, we conducted three types of analysis. Firstly, we compared means of Religious Denomination and all three of our dependent homonegativity variables. Secondly, we investigated, how Religious Denomination variable is related to our other religious independent variables, e.g., Confidence in Churches, Religious Attendance and Religiosity level. Lastly, we created eight dummy variables based on Religious

Denomination variable, and included them into our regression analysis to observe which additional effect they have on our dependent variables.

6.3.1. Religious Denomination and Homosexuality Acceptance: Descriptive Analysis

Tables 9-11 demonstrate the results of descriptive statistics analysis (comparing means) of our dependent variables split by religious denominations.

Table 9. Justifiable: Homosexuality and Religious Denomination

Religious Denomination	Mean	N	Std. Deviation
Buddhist	3,09	10369	2,520
Hindu	2,45	8668	2,575
Independent Christian	3,62	4140	3,137
Judaist	4,23	2800	3,477
Muslim	1,63	61134	1,688
Orthodox	2,21	53880	2,250
Protestant	4,00	67742	3,408
Catholic	3,65	130414	3,110

Table 9 presents results for our main variable of interest – homonegativity index, named as Justifiable: Homosexuality in WVS. Our main theoretical prediction derived from the literature review that Muslim religious denomination is the most homonegative one received an overwhelming support by these results – Muslims with their score of 1.63 (close to 1, "Never Justifiable") are indeed the most homonegative ones here. They are followed by the Orthodox with the score of 2.21 which, again, supported theoretical predictions and then, surprisingly, by Hindu with its score of 2.45. The last result is somewhat surprising as literature review suggested Hindu as one of relatively tolerant religion denominations. However, the results that we received might explain the case of India when homosexuality remains illegal after more than fifty years of democracy. We need regression results about Hindu to confirm this hypothesis however.

Protestantism with its score of 4 and Judaism with its score of 4.23 turned out to be the most tolerant religious denomination however. Results for Protestantism are in accordance with previous research but results for Judaism are surprising again since Judaism as one of monotheistic religions originally was strongly opposed to homosexuality. We might speculate that Judaism was developing and changing over centuries and modern Judaism could be relatively more progressive in general and more tolerant towards homosexuals in particular than original, ancient Judaism.

These results received additional support from relatively high tolerant score of Israel on our scale of homonegativity in previous analysis (4.89).

Buddhism, Catholicism and Independent Christian are somewhere in the middle on our homonegativity scale, with two Christian denominations more tolerant than Buddhism which is again surprising result because in its foundations Buddhism is relatively neutral to homosexuality compared to Christianity. Again, these results could be attributed to a significant change of Christian denominations over time (in particular, Catholic church in the West changed a lot during last time and even Pope Francis is relatively more tolerant towards homosexuality compared to previous Pope). In addition, these results somehow disapproved Jäckle and Wenzelburger results who claimed Christian denominations to be less tolerant than Buddhism and Hindu. One reason for this could be that we also used the last WVS wave in our analysis which was not available while they conducted their research.

Table 10. Neighbors: Homosexuals and Religious Denomination

Religious Denomination	Mean	N	Std. Deviation
Buddhist	,45	7758	,498
Hindu	,56	9799	,497
Independent Christian	,38	3876	,485
Judaist	,49	1691	,500
Muslim	,70	68721	,456
Orthodox	,64	56772	,479
Protestant	,35	58330	,478
Catholic	,38	122387	,485

Results for this variable in general support previous ones. Thus, Muslim religious denomination is again turned out to be the most homonegative one with its score of 0.70 (with 1 as "Don't want to have homosexual as neighbors"), followed by Orthodox with its score of 0.64 and, again, Hindu with score of 0.56. Protestants are again the leaders of tolerance with score of 0.35, followed by Catholics with 0.38 and Independent Christian Churches with 0.38. Judaists, in the contrary to results for previous variable, are in the middle with score 0.49, along with Buddhist with score of 0.45. These results highlighted two important issues. First one is that Christian religion denominations, with an exception of Orthodox Christianity, nowadays are the most tolerant ones in

terms of social distance towards homosexuals. This could be attributed to the fact that most of those Christian denominations functioned in the West where homosexuality was legally acknowledged and gay people could live openly in public. That might affect ATH of those Christians, at least in terms of social distance towards homosexuals. This could also explain relatively less tolerance of Hindu and Buddhism which were historically more tolerant towards homosexuality than Christianity, but, because nowadays Asian societies where these religions function, still do not recognize gay rights legally and homosexuals are not open in public, that might affect attitudes of members of those religious denominations in a negative way. Other important issue here is that, again, results for homonegativity index in general and for social distance towards homosexuals in particular are somewhat different (for example, different score of Judaism for those two variables).

Table 11. Homosexual Couples: Adopt Children and Religious Denomination

Religious Denomination	Mean	N	Std. Deviation
Buddhist	3,03	35	1,424
Hindu	3,66	29	1,045
Independent Christian	3,18	274	1,354
Judaist	3,47	64	1,414
Muslim	3,82	5826	1,205
Orthodox	4,12	14522	1,089
Protestant	3,15	7072	1,395
Catholic	3,78	17790	1,214

Interpreting results for the last dependent variable, we should bear in mind, that they came only from European countries and, therefore, we could not have somewhat reliable results here for Muslims, Hindu, Judaists and Buddhists (Turkey, Northern Cyprus and some Balkan countries are basically the only Muslim countries presented there, and no Buddhist country and also no Judaist and Hindu country since the only Hindu country is India and only Judaist country is Israel and they are not European ones). However, we could still have valuable results for all Christian denominations from Europe and also it is somewhat interesting to observe how results for other religious denominations are different from previous two analyses. We could speculate that these last results for other religious denominations came probably from some Hindu or Buddhists who lives in Europe, from immigrants. For Muslim religious denomination, results come both from Muslim immigrants in Europe and from few Muslim countries that presented in EVS data.

Because Muslim countries are underrepresented for this variable, the new leaders in terms of intolerance are Orthodox with their score of 4.12 (with 5 as maximum homonegative score for this variable, as total disagreement with the idea of child adoption by homosexual couples). Muslims with score of 3.82 and Catholics with score of 3.79 followed. It is interesting that Catholics, who were somewhat in the middle on homonegativity scale and were one of three tolerance leaders for social distance towards homosexuals, are one of three leaders of intolerance for this variable. It might indicate that Catholics nowadays have somewhat ambiguous ATH. For instance, they do not mind to socialize with homosexuals but still are strongly opposed to the idea of child adoption by homosexual couples. Highest score for child adoption is received by Buddhists with score of 3.03, Protestants with score of 3.15 and Independent Christians with score of 3.18. Here we could observe two tendencies. Firstly, Protestants, unlike Catholics, demonstrate somewhat unambiguous tolerant ATH with regard to all three variables which confirms our theoretical predictions about them. Secondly, European Buddhists turned out to be more tolerant than Buddhists in general, according to these last results. That could be explained by combined effect of relative neutrality of Buddhism as religion towards homosexuality and with open presence of homosexuals in public in European societies, compared to their absence in Asian ones which could contribute to relative less tolerance of Buddhists in general. However, in general score for this last variable is more negative than for previous two, since even the most progressive Buddhists are ranked with 3.03, which is in the middle of the scale indicating "I don't know whether homosexual couples should adopt children or not". Thus, even the most tolerant respondents do not fully agree with the idea of child adoption by homosexuals, they are just not against it. These results are in accordance with our cross-country analysis and somewhat important for our analysis.

6.3.2. Interaction between Religious Denomination and other religious variables

The next aspect of our analysis is the interaction between religious denominations and our other independent religious variables – religiosity level, confidence in churches and religious attendance. We already discovered in previous parts of our analysis that not only stronger personal religiosity, but greater confidence in churches and more frequent religious attendance contribute to more homonegative attitudes, thus implying expertise heuristics effect. Findings from the last part of our research suggested that Muslim and Orthodox religious denominations are the most homonegative ones, with respect to all our three dependent variable. Could we expect then that levels of confidences in churches and religious attendance are higher among these two denominations, which could contribute to their stronger homonegativity?

There are two more statements to be tested then:

S1: Muslims have strongest confidence in churches relative to other religious denominations which contributes to their highest homonegativity level

S2: Muslims have the most frequent religious attendance level relative to other religious denominations which contributes to their highest homonegativity level

Tables 12-13 demonstrate levels of confidence in churches and religious attendance split by religious denominations.

Table 12. Confidence in Churches and Religious Denomination

Religious Denomination	Mean	N	Std. Deviation
Buddhist	2,48	10189	,929
Hindu	1,81	9321	,933
Independent Christian	1,86	4264	,911
Judaist	2,22	1867	,918
Muslim	1,80	74882	,936
Orthodox	1,94	55978	,883
Protestant	2,07	68786	,898
Catholic	2,03	137498	,911

These results somewhat support our previous two statements. Muslims turned out to have the greatest confidence in churches with their score of 1.80 (as we remember, "1" signifies the highest level of confidence and "4" the lowest for this variable). However, level of confidence for Muslims is not so much different from levels of other denominations as we could observe. Hindu have almost the same level of confidence raked with 1.81 and then Independent Christians followed with their score of 1.86. Hindu were ranked poorly on the scale of homonegativity for all three dependent variables so these results support our predictions too but Independent Christians were somewhat more tolerant on homonegativity scale so it seems that their confidence to their churches does not affect much their ATH. Same goes to Catholics and Protestants who have somewhat average confidence to religious institutions ranked with 2.03 and 2.07 respectively. Judaists and

Buddhists are the least confident to their religious institutions religious denominations with scores of 2.22 and 2.48 respectively which somehow reflects their relative tolerance towards homosexuality in previous analysis.

These findings suggest two important issues for our analysis. Firstly, our predictions for the most of religious denominations are supported. Thus, members of the most homonegative denominations – Muslims, Orthodox and Hindu – also have the greater levels of confidence to their churches. Buddhists and Judaists who turned out to be relatively tolerant towards homosexuality have lesser confidence in churches either. The discrepancies in results affect only Western Christian denominations – Catholics, Protestants and Independent Christians. They have relatively strong or somewhat average confidence in churches and religious institutions but they also have more neutral or tolerant views towards homosexuals. How could we explain these somewhat surprising findings? An important issue that most of those Christian religious denominations operate nowadays in the Western world – in Europe and both Americas where homosexuality is already more or less accepted by the societies and gay rights are recognized legally. This issue could affect also values and attitudes of religious believers of those denominations. There could be two possible ways to explain it. Firstly, Protestant, Catholic and Independent Christian churches might still preach against homosexuals and religious believers might still have some degree of confidence in their preaches, as our results suggested. However, people in the West might have confidence in other issues as well – in science or liberal ideology, for example. If scientists or liberal politicians claim something opposite to what churches and religious leaders are saying, for example, about homosexuality, it might affect opinions and attitudes of religious believers too if they have at least some confidence in science or liberal ideology. Thus, if church claims that homosexuality is a sin, but science tells that it is actually human nature which we cannot choose or change, and human rights activists add to the public discourse the importance of protecting of gay rights against discrimination, public opinion would be somewhat divided on that issue even among the religious believers. In addition, religious leaders have less freedom in their homonegative speeches in the West compared to Middle East for example. If they would call homosexuals to death, for instance, the might be judged for hate speech. In the Middle East, however, religious leaders are free to call homosexuals to death since in some of those countries it is actually legal to kill homosexuals. Therefore, the effect of homonegative speeches by religious leaders in the countries where gay rights are not recognized and not protected might be somewhat stronger than in societies where gay rights are protected. In addition, Western Christian churches are also changing over time. Thus, even Catholic Pope Francis is relatively more tolerant towards homosexuals than previous Popes, and some Protestant churches even allowed some services for homosexuals inside the church. There is not an issue for Orthodox and Muslim churches, however. Therefore, we could argue that in

general the effect of confidence in churches on ATH is negative but it is somewhat different and nonlinear for different religious denominations. This effect is stronger for Muslims, Hindu, Orthodox, Judaists and Buddhists and somewhat softer and more controversial for Western Christian denominations.

Table 13. Religious Attendance and Religious Denomination

Religious Denomination	Mean	N	Std. Deviation
Buddhist	4,40	10882	2,126
Hindu	3,39	9735	2,041
Independent Christian	3,29	4285	2,314
Judaist	4,58	1880	2,453
Muslim	3,94	75807	2,692
Orthodox	4,42	56941	1,942
Protestant	4,40	68512	2,590
Catholic	3,80	137669	2,291

To interpret these results we need to know that religious attendance variable is ranked from 1 to 8, from the most frequent to the least frequent level. Our findings, however, are not so informative in this case as in case of previous variables. All religious denominations are scored somewhere in the middle of frequency of attendance level, around 4, and there is no significant differences between different religious denominations. Independent Christians, Hindu, Catholics and Muslims are more frequent attendants since all of them are ranked below 4, and Buddhists, Protestants, Orthodox and Judaists are less frequent attendants of religious services. There is no clear connection between religious attendance and homonegativity with this regard, however. Thus, Independent Christians are the most frequent religious attendants but they are relatively tolerant towards homosexuals. In the contrary, Orthodox Christians are the second least frequent religious attendants but they are the second most homonegative religious denomination. Theoretical predictions are though confirmed for some religious denominations like Protestants and Judaists are not so frequent attendants and the most tolerant towards homosexuals, while Muslims and Hindus are more frequent attendants and the least tolerant ones. However, the difference in attendance between different religion denominations is not so great and significant, somewhat arbitrary and we could not rely on these findings in our analysis as we could do for the previous variable – confidence in churches.

6.3.3. Religious Denomination: Regression Analysis with Dummy Variables

Descriptive analysis demonstrated general tendencies and correlations between different religious denominations and our variables of interest. To understand their effect on our dependent variables fully, we need to conduct regression analysis, including religious denomination in our analysis as a set of dummy variables.

First, we created a set of eight dummy variables from our recoded "Religious Denomination" variable. These dummy variables are: Muslim, Orthodox, Protestant, Catholic, Hindu, Buddhist, Independent Christian. We used the ninth variable "Other" as a reference category (in the variable "Other" were included other religious denominations which were excluded from the main analysis because of the small number of respondents, or because of their relative irrelevance to the major religious denominations in the world like Zionists or Zoroastrians, for instance). We decided to choose excluded category as a reference since we were interested to observe the effect of all major religious denominations of interest on our dependent variable and didn't want to exclude any of them from the regression analysis.

All other religious independent variables and all controls that we used in our previous regression analysis were included into this analysis as well. The only difference is that we included set of dummy variables with religious denominations in addition. Results for the first variable, "Homonegativity Index", are presented in the table 14.

Table 14. Individual-level predictors of homonegativity in the world: the effect of Religious Denomination

Parameter	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
(Intercept)	1,656	,0214	3,179	,3060	1,920	,0212	3,294	,2959
Confidence in Churches	,579	,0053	,494	,0363				
Religiosity Level	,516	,0105	,354	,0676	,544	,0106	,301	,0675
Religious Attendance					,214	,0021	,230	,0141
Protestant	,478	,0177	,891	,1204	,507	,0179	,814	,1173
Muslim	-1,683	,0144	-2,428	,1104	-1,741	,0147	-2,360	,1114
Catholic	,221	,0150	-,231**	,0954	,311	,0154	-,065*	,0961
Orthodox	-1,171	,0159	-,198*	,4875	-1,290	,0160	-,082*	,4677

Hindu	**-,911**	**,0317**	**2,290**	**,1739**	**-,869**	**,0315**	**3,260**	**,1433**
Judaist	**,030***	**,0760**	**-,546***	**,9167**	**,044***	**,0780**	**-,240***	**,8456**
Independent Christian	**,253**	**,0501**	**-,745****	**,3115**	**,347**	**,0503**	**-,560****	**,3087**
Buddhist	**-,683**	**,0298**	**4,232**	**,1324**	**-,503**	**,0296**	**5,636**	**,5967**
Sex			**,668**	**,0617**			**,624**	**,0611**
Age			**-,356**	**,0507**			**-,362**	**,0502**
Marital Status			**-,700**	**,1037**			**-,656**	**,1026**
Number of Children			**-,077****	**,0226**			**-,076****	**,0224**
Educational Level			**,193**	**,0170**			**,202**	**,0168**
Employment Status			**-,011***	**,0169**			**-,015***	**,0168**
Income Level			**,128****	**,0450**			**,116****	**,0446**
Socio-Economic Status			**-,334**	**,0391**			**-,334**	**,0386**

All coefficients, except (*) and (**), are significant at p =0.00.

(*) = coefficients are insignificant.

(**) = coefficients are significant at $p < 0.05$.

The analysis was conducted in the same manner as previous one. First, in Models 1 and 3 we isolated the effects of religious variables including religious denomination dummies, on our dependent variable, and in Models 2 and 4 we included all our controls. The difference between Models 1 and 3 is that in Model 1 we included the measure of confidence in churches and in Model 3 – measure of religious attendance. Same difference is between Models 2 and 4. Religious denomination dummies are included in all the models.

Results supported our predictions. Muslims are the most homonegative religious denomination in all four models, coefficient for them is significant in all models and the negative effect is strongest among all other predictors. In addition, the inclusion of controls strengthens the power of homonegativity of Muslims (for instance, from -1,683 in Model 1 to -2,428 in Model 2). Homonegative effect of Muslims is about three times stronger than of other religious variables (confidence in churches and religious person) in Model 1, and about six times stronger in Model 2. When confidence in churches is replaced by religious attendance, homonegative effect of Muslims became even stronger.

Situation with other religious denominations is somewhat more complex. In Models 1 and 3, without controls, Orthodox, Hindu and Buddhists also have negative effect on our variable of interest, though less strong than Muslims, but Western Christian denominations (e.g., Catholics, Protestants, Independent Christians) and Judaists have a positive effect on our dependent variable (the effect of Judaism is insignificant in all models, however, so we can exclude Judaists from our analysis). We could explain these results by the fact that in the absence of control variables, relatively more tolerant religious denominations (like Western Christian ones) seemed to play positive effect compared to the more homonegative religious denominations.

The inclusion of controls changed the situation however. Muslims still remain the most homonegative religious denomination and the strongest predictor of homonegativity in all four models, as was said above. Protestants also remain the most positive to homosexuality religious denomination in all four models and their effect is relatively strong and significant. Results for other religious denominations are somewhat changed after controls were added, however. Thus, Catholics, Judaists and Independent Christians already play negative role in shaping ATH after inclusion of controls, though coefficients for Judaists are insignificant and coefficients for Catholics and Independent Christians are significant only at $p < 0.1$ (and coefficient for Catholics in Model 4 is significant). Orthodox remain homonegative after inclusion of controls, but their effect became less strong (for example, from -1,171 in Model 1 to -0,198 in Model 2) and insignificant. Even more interesting metamorphoses affect Buddhists and Hindu whose coefficients remain significant but change their sigh from negative to positive, and strongly positive (for example, from -,683 in Model 1 to 4,232 in Model 2 for Buddhism). These results may suggest that, though the effect of Buddhism and Hindu is general is negative, in the presence of other factors which influence homonegativity, it might become somewhat more positive. However, these results for Buddhists and Hindu are still somewhat controversial.

The most reliable findings from this analysis are about Muslims as the most homonegative and Protestants as the most tolerant to homosexuals religious denominations. Orthodox are homonegative in all the models but their effect became insignificant after inclusion of controls, and the effect of Judaism is insignificant in all models. As for other four religious denominations (Catholics, Independent Christians, Buddhists and Hindu), results for them are somewhat on the border of significance and controversial since their effect changed after inclusion of controls to the opposite. However, we can claim that our results for Muslims and Protestants confirmed our theoretical predictions and findings from previous research.

Among controls, the effects remained the same as in previous analysis: female gender, younger age, single marital status, smaller number of children, higher educational and income levels contribute to less homonegativity. The effect of employment status is insignificant, but for socio-

economic class results are also the same as in previous part of analysis – manual workers tend to be more homonegative than non-manual workers, and upper social classes are less homonegative than lower ones.

We conducted the same analysis for the second dependent variable – "Neighbors: Homosexuals" – with religious denomination dummy variables. For this variable, coefficients turned out to be insignificant for most of the religious denominations. However, effects of Muslims and Protestants are still strong and significant, and Muslims are again the most homonegative religious denomination and Protestants – the most positive to homosexuals religious denomination. In addition, Catholics have homonegative, but less strong effect. For controls, effects are also the same, except for the income level. Higher income contributes to greater social distance from homosexuals in this analysis. Age, marital status and employment status turned out to be insignificant. However, the same results for the second variable we obtained in previous analysis, without religious denominations. In addition, for the Model 2 here below the coefficient for the religiosity level is also insignificant, and coefficients for religious attendance and for Catholics are significant at $p < 0.05$. Here below in Table 15 the results for the second dependent variable are presented. We decided to run only two models for this variable since in the case of most of religious denomination dummies turned out to be insignificant, there is no sense to waste time on observing their separate effect without controls.

Table 15. Individual level predictors of social distance towards homosexuals

Parameter	Model 1		Model 2	
	B	SE	B	SE
(Intercept)	,003	,2392	-,120	,2356
Confidence in Churches	,236	,0291		
Religiosity Level	,186	,0534	,099*	,0545
Religious Attendance			,145**	,0117
Protestant	,582	,1062	,563	,1054
Muslim	-3,130	,1384	-3,087	,1391
Catholic	-,311	,0711	-,159**	,0737
Orthodox	,375*	,4224	,489*	,4196
Hindu	23,283*	32,2377	23,896*	28,0682
Judaist	,024*	,6211	,155*	,6060

Independent Christian	**-,223***	**,2257**	**-,068***	**,2246**
Buddhist	**24,149***	**40,8624**	**24,669***	**.**
Sex	**,358**	**,0490**	**,357**	**,0490**
Age	**-,084***	**,0402**	**-,080***	**,0402**
Marital Status	**-,192***	**,0843**	**-,153***	**,0843**
Number of Children	**-,085**	**,0194**	**-,083**	**,0194**
Educational Level	**,084**	**,0132**	**,093**	**,0133**
Employment Status	**-,006***	**,0134**	**-,005***	**,0133**
Income Level	**,124**	**,0355**	**,109**	**,0354**
Socio-Economic Status	**-,127**	**,0299**	**-,133**	**,0301**

All coefficients are significant at $p < 0.01$, except:

(*) – insignificant

(**) – significant at $p < 0.05$.

We also conducted the same regression analysis with religious denomination dummy variables for our last dependent variable, "Homosexual Couples: Adopt Children". We decided to keep only two models as for the second variable in this case either. Results are presented in Table 16 below. Half of our controls turned out to be insignificant – only sex, age and educational level remained significant. Among the religious denomination, Hindu and Judaist coefficients are insignificant, and for the second model Buddhist coefficient became insignificant too. While interpreting results which are still significant, we should remember that coding of our dependent variable in this case is inverse, and, thus, coefficients with inverse signs compared to two previous variables, contribute to positive and negative ATH.

Effect of religiosity, religious attendance and confidence in churches is significant and negative, as in the previous models. Among controls results also confirmed previous ones: female gender, younger age and higher educational level contribute to less homonegativity. Findings for religious denominations among significant ones are somewhat interesting. Muslims, Catholics and Orthodox have negative effect, though the most negative effect in this case is Orthodox one, not Muslim. We could explain these results if we remember that data for this variable came only from EVS, e.g., from European countries. Therefore, majority of Muslim countries excluded from this analysis. In two models below Muslim countries are represented only by Turkey, Northern Cyprus, Albania and Kosovo. Therefore, these results do not represent Muslims in general. In the absence of

majority of Muslim countries, it is not surprising that Orthodox became the most homonegative. Effects of Hindu, Judaists and Buddhists are insignificant (that could be explained by the fact that these religious might be underrepresented in European countries as well). Protestants and Independent Christians are the only religious denominations which have positive effects on this variable.

Table 16. Individual Level Predictors of Attitudes towards Child Adoption by Homosexual Couples and Religious Denomination

		Model 1		Model 2	
		B	SE	B	SE
Threshold	= "1"	-3,500	,0699	-3,543	,0694
	= "2"	-2,123	,0679	-2,165	,0675
	= "3"	-1,388	,0674	-1,433	,0670
	= "4"	-,137**	,0671	-,185	,0666
Confidence in Churches		-,178	,0107		
Religiosity Level		-,316	,0192	-,304	,0189
Religious Attendance				-,082	,0044
Protestant		-,600	,0322	-,581	,0316
Muslim		,156	,0353	,157	,0351
Catholic		,142	,0262	,067**	,0269
Orthodox		,723	,0274	,704	,0273
Hindu		,243*	,3074	,128*	,3136
Judaist		-,167*	,3295	-,289*	,3126
Independent Christian		-,656	,1234	-,732	,1185
Buddhist		-,918**	,3822	-,742*	,4403
Sex		-,331	,0172	-,331	,0171
Age		,280	,0116	,278	,0115
Educational Level		-,056	,0049	-,057	,0048

All coefficients are significant at $p < 0.01$, except:

(*) – insignificant

(**) – significant at $p < 0.05$.

We run several models for all three our dependent variables. Our findings for each variable are somewhat different and many predictors became insignificant in case of second and third dependent variables. However, two facts remain the same through all analysis. Muslim religious denomination always contributes to homonegativity and in case of first two variables it is the strongest predictor of homonegativity (it is not the case with the last variable only because Muslims

are underrepresented there). Protestant religious denomination, in the contrary, always contributes to positive ATH and in all cases is the most positive of all religious denominations. The coefficients for Muslims and Protestants are highly significant (p=0.00) and stable in all our models. Therefore, we could claim that not all religions contribute to homonegativity as it was considered in some previous research. Islam is the most homonegative of all religions indeed, but Protestantism is relatively tolerant and contributes to positive ATH.

However, we just presented our regression results for now and didn't address the question why actually Islam turned out to be the most homonegative religious denomination and Protestantism the most tolerant one. There could be two possible theoretical explanations derived from our social psychology theoretical background and from our literature review. Firstly, it is an expertise heuristics effect, of course. We have demonstrated in our first regression models that confidence in churches as a measure of homonegativity has the greater effect on homonegativity than personal religiosity. Afterwards we demonstrated that Muslims who are the most homonegative among religious denominations also have greatest confidence in their religious institutions. Thus, their greater confidence in churches might contribute to their greater homonegativity level. In the contrary, Protestants tend to be relatively less confident in their religious institutions than other religious denominations. However, it is only one side of the coin. Second explanation could be derived from Inglehart's ideas about secular and traditional values. Thus, according to Inglehart, societies with secular, rational values tend to express less homonegativity levels than societies with traditional values shaped by religions. Western countries in general and Protestant ones in particular separated church from the state and established secular legislation while majority of Muslim countries still live under religious, "sharia law". Thus may contribute to more traditional and homonegative values in those societies and to greater confidence in churches there either. Therefore, according to those explanations, we cannot expect changes to greater tolerance in Islamic societies until they separate state from the church and establish secular and not religious law. Thus, secularization of Muslim societies is recommended as one of the possible ways of value change. This idea received additional support from history. Thus, first decriminalization of homosexuality in the Islamic world happened in Ottoman Empire during Tanzimât secular reformation, as was stated in historical review.

We considered also another explanation for these findings derived from Inglehart's theories. According to Inglehart, economic development could contribute to less homonegativity in a particular society. Thus, wealthy and affluent societies with self-expression values tend to be less homonegative, while poor societies with survival values, in the contrary, tend to express greater levels of homonegativity. There could be an explanation that Western Christian countries are less homonegative because they are wealthy and affluent while Middle Eastern and African Islamic

countries are relatively poor. However, this explanation does not hold truth for many cases. For example, Saudi Arabia is indeed wealthy and affluent country but it has a death sentence for homosexuals. Other Islamic countries from Organization of Petroleum-Exporting Countries (OPEC) are relatively wealthy either but not tolerant. Therefore, economic development cannot explain these cases but expertise heuristics effect could. Great confidence in religious institutions in Islamic societies and religious "sharia law" tend to be a great obstacle on the way towards greater acceptance of homosexuality. Our prediction is until the secular reformation is made in those societies and "sharia law" is left behind, we should not expect any positive changes in societal attitudes towards homosexuality.

7. Conclusions

In this paper, we conducted empirical statistical analysis to explore attitudes towards homosexuality (ATH) around the world. For this purpose, we used data from World Values Survey (WVS) and European Values Study (EVS) from more than 100 countries. Our dependent variables were those related to homosexuality and societal attitudes towards it: homonegativity level, social distance towards homosexuals and societal attitudes towards child adoption by homosexual couples.

Our cross-country descriptive analysis demonstrated that Western countries (e.g., Europe, North and Latin America) and Israel tend to be more tolerant towards homosexuals, while Asian African and Eastern European countries tend to be less tolerant. Andorra turned out to be the least homonegative country and Egypt – the most homonegative one, for the first two of our dependent variables. Our findings for these two variables are in general concurred though there are some notable exceptions. Thus, some Muslim countries which were scored were poorly on the homonegativity scale, are ranked much higher in terms of social distance towards homosexuals, e.g., the respondents from those countries do not mind much to have homosexuals as neighbors (for instance, Bahrain, Pakistan and Bangladesh). Speaking about our last variable, the data from it came only from EVS and, therefore, mostly from European countries. Even if we could expect higher tolerance because of that, all the countries were scored relatively poorly, with the Western European countries to be more tolerant and Eastern European countries – less tolerant. However, the average score for this variable is closer to the negative one, thus, to the disapproval of child adoption by homosexual couples. Therefore, based on this analysis we could conclude that even in Europe homosexuality is still not fully accepted nowadays.

Afterwards, we run three separate multiple regressions for each of our dependent variables. The independent variables of our main interest were the religious ones – religiosity level,

confidence in churches and religious attendance. The first one captured the effect of religion on ATH in general, while other two variables were used to test our main theoretical hypothesis derived from social psychology – expertise heuristics effect. In addition, we included into our regression models several control variables suggested by our literature review. Our results confirmed both our theoretical predictions and other researcher's statements. Thus, confidence in churches turned out to be significant predictor of homonegativity, which effect on ATH was stronger than one of religiosity level. Therefore, confidence in religious institutions matters and expertise heuristics effect works. Second measure of this effect, the frequency of religious attendance, was also significant, though its effect was somewhat smaller than of religiosity level. Speaking about our control variables, we could claim that female gender, younger age, single marital status, smaller number of children, higher educational level, upper social class and higher income level contribute to less homonegativity and higher tolerance. Those results are held for all three dependent variables. However, for the second variable, age started to play an opposite effect, e.g., older age contributed to less homonegativity in terms of social distance towards homosexuals. Speaking of the last variables, almost all of our controls lost our significance. Only age, sex and educational level remained significant predictors of acceptance of child adoption by homosexual couples. However, for our main, religious, variables effects are strong and coefficients are significant in all of our three models.

Finally, we investigated the role of different religious denominations in shaping ATH. Our descriptive analysis suggested that Judaists, Protestants, Independent Christians (which do not belong to any official Christian denomination) and Catholics are the most tolerant religious denominations, while Muslims, Orthodox, Hindu and Buddhists are the least tolerant ones. Those results are somewhat surprising since Christianity, as monotheistic religion, is tend to be more homonegative, than Buddhism and Hindu which are more or less neutral to homosexuality, but our results suggested that Western Christian denominations (Protestants, Catholics and Independent Christians) are actually more tolerant. Our results are held for all three dependent variables with slight discrepancies. We could contribute these findings to the fact that Western Christian denominations nowadays are changing along with the Western societies towards greater tolerance while Buddhism and Hindu, even if originally more tolerant, now drag behind along with Asian more homonegative societies.

Afterwards, we again run three regression models, including religious denomination as a set of dummy variables. Our findings for all three models suggest that Islam is the most homonegative religious denomination with the strongest negative effect on ATH (with the slight exception of the last model, where Muslim are the second homonegative ones after Orthodox, but this fact could be explained by the fact that data for the last variable came only from Europe which leaves out the

majority of Muslim countries while including the majority of Orthodox ones), while Protestantism is the most tolerant one. Effects for Muslims and Protestants are strong and significant for all three models. With other religious denominations, situation is somewhat more difficult. Judaism turned out to be insignificant in all three models, while Orthodox Christianity lost its significance after introduction of control variables. Buddhism, Hindu and Independent Christianity lost its significance in the last two models, while effect of Catholicism is different in each model. Therefore, we received reliable and significant regression results only for Muslims and Protestants.

We could explain these results for religious denominations by our theoretical hypothesis – expertise heuristics effect. Thus, our descriptive analysis also demonstrated that Muslims tend to have greatest confidence in their religious institutions while Protestants have relatively less confidence in their churches. Therefore, we could argue, that confidence in authorities matters and one of the reasons of higher homonegativity of Muslims is their greater confidence in religious institutions. In addition, majority of Muslim countries still lives under religious, "sharia" law, which could contribute to greater religiosity of those societies and their traditional values, shaped by Islam. According to Inglehart's concepts, traditional values contribute to greater homonegativity while secular values are related to greater tolerance towards homosexuality. Thus, our suggestion to improve situation in Muslim countries is their secularization. Until those societies live under religious law and have great confidence in their religious institutions, which preach against homosexuality on the regular basis, no possible value change could happen.

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Appendix

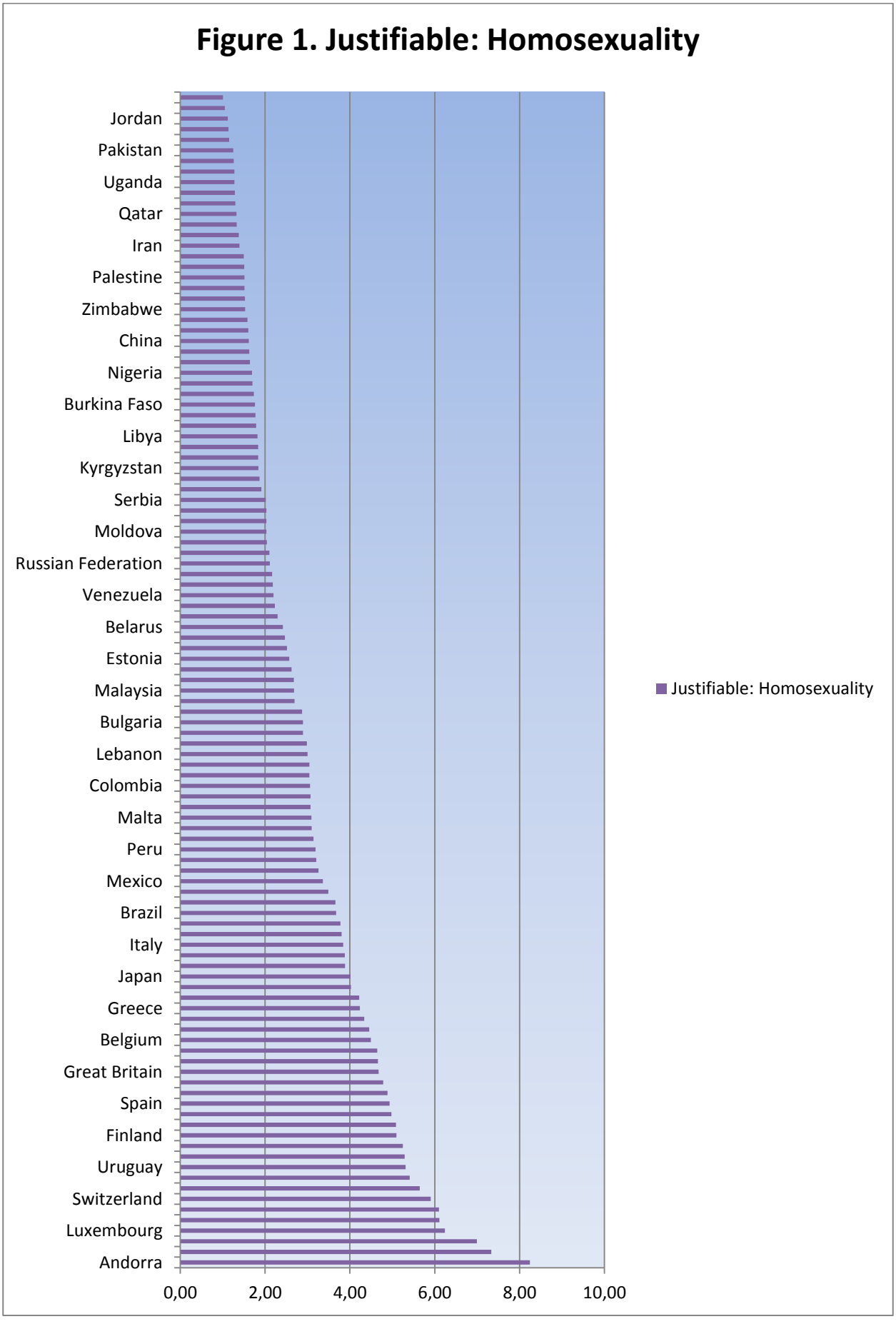
Figure 1. Justifiable: Homosexuality
Jordan
Pakistan
Uganda
Qatar
Iran
Palestine
Zimbabwe
China
Nigeria
Burkina Faso
Libya
Kyrgyzstan
Serbia
Moldova
Russian Federation
Venezuela
Belarus
Estonia
Malaysia
Bulgaria
Lebanon
Colombia
Malta
Peru
Mexico
Brazil
Italy
Japan
Greece
Belgium
Great Britain
Spain
Finland
Uruguay
Switzerland
Luxembourg
Andorra
0,00
2,00
4,00
6,00
8,00
10,00
Justifiable: Homosexuality

Figure 2. Neighbors: Homosexuals

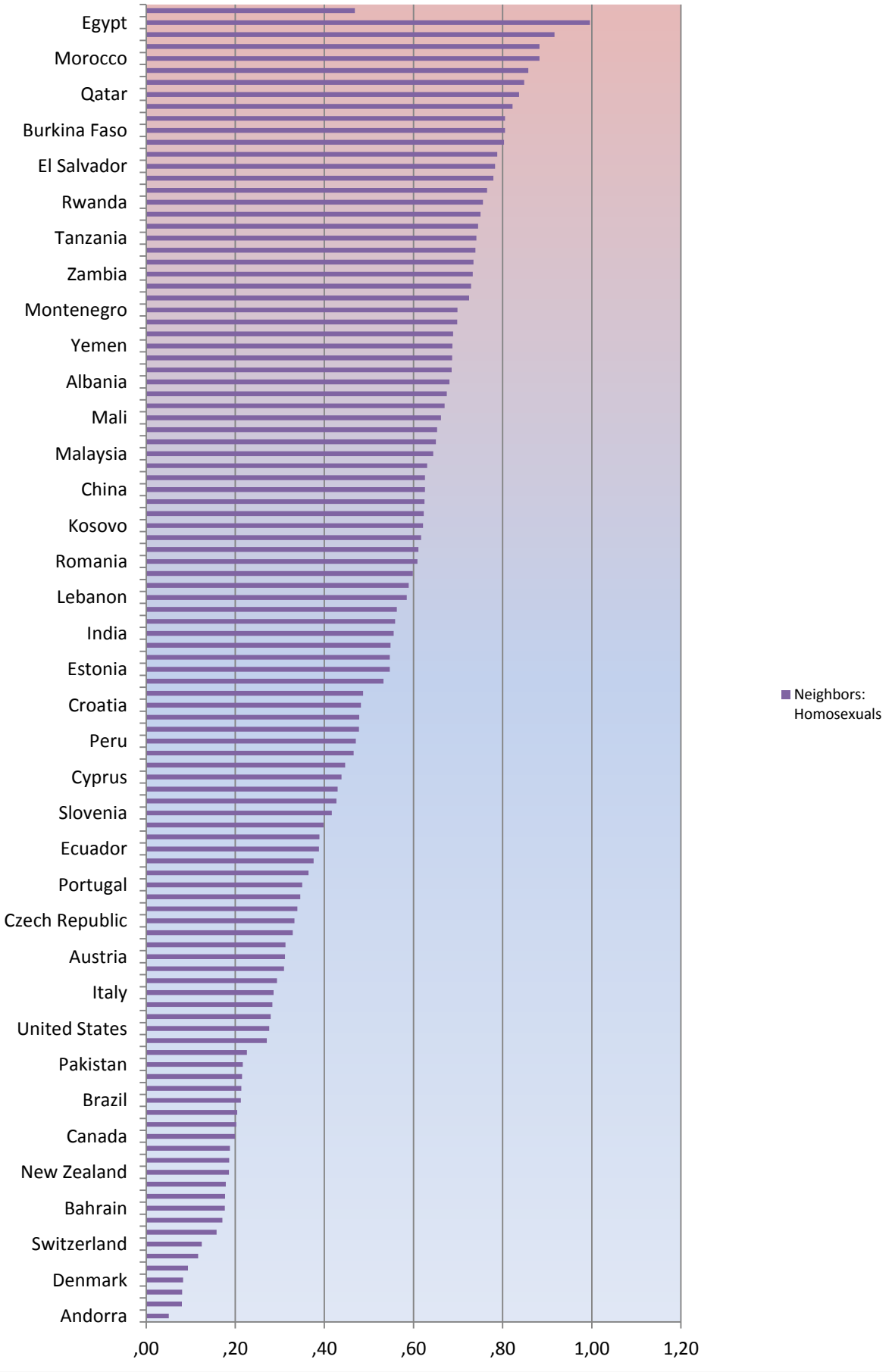

Figure 3. Homosexual couples: Adopt Children